



American
Dental
Association

211 East Chicago Avenue
Chicago, Illinois 60611

The Bureau of Economic and
Behavioral Research

A 1475-9-U

The 1988 Survey of Dental Practice

Income from
the Private Practice
of Dentistry



TABLE OF CONTENTS

	<u>Page</u>
LIST OF TABLES.....	v
I. <u>INTRODUCTION</u>	1
A. SURVEY METHODOLOGY.....	2
B. GENERAL CHARACTERISTICS OF PRIVATE PRACTICE DENTISTRY IN THE UNITED STATES, 1987.....	3
II. <u>INCOME FROM THE PRIVATE PRACTICE OF DENTISTRY</u>	5
A. GENERAL.....	5
B. NET INCOME OF INDEPENDENT DENTISTS.....	5
C. NET INCOME OF SOLO DENTISTS.....	21
D. NET INCOME OF NONOWNER DENTISTS.....	36
E. NET INCOME OF INDEPENDENT CONTRACTORS.....	38
F. GROSS INCOME OF INDEPENDENT DENTISTS.....	38
G. GROSS INCOME OF SOLO DENTISTS.....	43
III. <u>SUMMARY OF SELECTED RESULTS</u>	48
A. GENERAL CHARACTERISTICS OF DENTISTS IN PRIVATE PRACTICE IN THE UNITED STATES, 1987.....	48
B. INCOME FROM THE PRIVATE PRACTICE OF DENTISTRY.....	48
IV. <u>DEFINITIONS</u>	53
V. <u>APPENDIX: THE 1988 SURVEY OF DENTAL PRACTICE QUESTIONNAIRE</u>	55



LIST OF TABLES AND FIGURES

<u>Tables</u>		<u>Page</u>
1	Net Income of Independent Dentists by Source of Dental Income, 1987.....	6
2	Net Income of Independent General Practitioners and Independent Specialists by Source of Dental Income, 1987.....	7
3	Mean Net Income of Independent Dentists by Age and Source of Dental Income, 1987.....	9
4	Mean Net Income of Independent General Practitioners and Independent Specialists by Age and Source of Dental Income, 1987.....	10
5	Time Spent by Independent Dentists in Private Practice, Percentage Distribution by Hours Per Week and Hours Per Year, 1987.....	11
6	Mean Net Income of Independent Dentists by Hours Per Week, Hours Per Year, and Source of Dental Income, 1987.....	12
7	Mean Hours Worked and Mean Age of Independent Dentists, 1987.....	13
8	Percentage Distribution of Independent Dentists by Current Employment Status and Initial Employment Status in the Primary Practice, 1987.....	15
9	Current Employment Status of Independent Dentists by Initial Employment Status in the Current Practice, 1987.....	16
10	Percentage Distribution of Independent Dentists by Current Employment Status and Age of the Dentist, 1987.....	17
11	Mean Net Income of Independent Dentists by Employment Status in the Primary Practice and by Source of Dental Income, 1987.....	18
12	Mean Net Income and Mean Age of Independent Dentists by U.S. Region and Source of Dental Income, 1987.....	20

LIST OF TABLES AND FIGURES

<u>Tables</u>		<u>Page</u>
13	Mean Net Income of Solo Dentists by Source of Dental Income, 1987.....	21
14	Mean Net Income of Solo General Practitioners and Solo Specialists by Source of Dental Income, 1987.....	22
15	Mean Net Income of Solo Dentists by Age and by Source of Dental Income, 1987.....	23
16	Mean Net Income of Solo General Practitioners and Solo Specialists by Age and Source of Dental Income, 1987..	24
17	Time Spent by Solo Dentists in Private Practice, Percentage Distribution by Hours Per Week and Hours Per Year, 1987.....	25
18	Mean Net Income of Solo Dentists by Hours Per Week, Hours Per Year, and Source of Dental Income, 1987.....	27
19	Mean Hours Worked and Mean Age of Solo Dentists in Private Practice, 1987.....	28
20	Percentage Distribution of Solo Dentists by Current Employment Status and Initial Employment Status in Current Primary Practice, 1987.....	29
21	Current Employment Status of Solo Dentists by Initial Employment Status in the Current Practice, 1987.....	30
22	Percentage Distribution of Solo Dentists by Current Employment Status and by Age of the Dentist, 1987.....	31
23	Mean Net Income of Solo Dentists by Employment Status in the Primary Practice and by Source of Dental Income, 1987.....	32
24	Mean Net Income and Mean Age of Solo Dentists by U.S. Region and Source of Dental Income, 1987.....	34
25	Mean Net Income of Nonowner Dentists by Source of Dental Income, 1987.....	36

LIST OF TABLES AND FIGURES

<u>Tables</u>		<u>Page</u>
26	Time Spent by Nonowner Dentists in Private Practice, Percentage Distribution by Hours Per Week and Hours Per Year, 1987.....	37
27	Mean Net Income of Independent Contractors by Source of Dental Income, 1987.....	38
28	Independent Dentists' Primary Practice Gross Income Per Owner Dentist, 1987.....	39
29	Independent Dentists' Primary Practice Gross Income Per Owner Dentist by Age, 1987.....	40
30	Independent Dentists' Primary Practice Gross Income Per Owner Dentist by Region, 1987.....	41
31	Independent Dentists' Primary Practice Gross Income Per Owner Dentist by Employment Status, 1987.....	42
32	Solo Dentists' Primary Practice Gross Income, 1987....	43
33	Solo Dentists' Primary Practice Gross Income by Age, 1987.....	44
34	Solo Dentists' Primary Practice Gross Income by Region, 1987.....	46
35	Solo Dentists' Primary Practice Gross Income by Employment Status, 1987.....	47
 <u>Figures</u>		
1	Employment Status of Dentists, 1987.....	4
2	Mean Net Income by Age Group, Independent Dentists, 1987.....	50
3	Mean Net Income by Region, Independent Dentists, 1987.....	50
4	Mean Net Income by Age Group, Solo Dentists, 1987.....	51
5	Mean Net Income by Region, Solo Dentists, 1987.....	51
6	Mean Net Income by Specialty Status, 1987.....	52
7	Mean Net Income by Hours Worked per Week, 1987.....	52

INCOME FROM THE PRIVATE PRACTICE OF DENTISTRY, 1987

I. INTRODUCTION

The 1988 Survey of Dental Practice (SDP) is the most recent version of a survey that has been conducted every two or three years since the 1950's by the American Dental Association's Bureau of Economic and Behavioral Research. The purpose of the survey is to provide reliable information on characteristics of the private practice of dentistry in the United States.

The 1988 SDP consisted of detailed questions dealing with the expenses of operating a private practice, net and gross income earned from the private practice of dentistry, the number of patient visits to the dentists, hours and weeks worked in the private practice, occupational and employment status, practice personnel mix, auxiliary employment and wages, and other selected characteristics.

Dental fees, the costs of operating a dental practice, the amount and mix of dental services rendered, and the market conditions for dental services are all intricately related and determine income from the private practice of dentistry. The level and growth of dental incomes are indicators of the economic health of dental practice and are influential factors for those individuals contemplating entry into the dental profession. In 1987, the nation spent about 32.8 billion dollars for dental services, representing about 6.5% of the total amount spent by the nation for all health services.¹ Since these expenditures were for dental services, they represent the gross income earned by private practicing dentists.

This report contains an examination of dentists' net and gross income from the private practice of dentistry. Net income from the dental practice is defined as the difference between the gross income of the practice (i.e., gross receipts by the practice) and the expenses of operating the practice. That is, gross income represents the total of all fees and other payments derived from rendering services in a private dental practice. Net income is what remains after practice expenses have been deducted from gross income but before the payment of income taxes.

¹Source: Health Care Financing Administration, Department of Health and Human Services, 1988.

A. Survey Methodology

The 1988 Survey of Dental Practice (SDP) was an updated version of the long-form 1985 SDP. This survey was sent to 4% of the dentists who were known to be actively engaged in the private practice of dentistry.

Sampling

The population consisted of 133,823 dentists who, based on the 1982 Distribution of Dentists, were known to be in private practice, even if only part-time.

The Distribution of Dentists is a dental census that is conducted periodically by the Bureau of Economic and Behavioral Research of the American Dental Association. Although the 1982 distribution was the most recent complete census at the time the sample was drawn, the sampling frame is updated periodically by adding information about recent graduations, retirements, and deaths when available. Dentists with an unknown practice type were included in the sampling frame.

The sample was ordered by type of practice (general practitioner or specialist). Within each type, the sample was sorted by dental school and graduation year. A random sample from each type of practice was selected. Since specialists comprise a small percentage of the dental population, it was necessary to oversample them to ensure adequate numbers for statistical analysis (i.e., the proportion of specialists sampled is higher than the actual percentage of specialists in the population). It should be noted that the sample was drawn in such a way as to make statements about general practitioners and specialists as a whole. For any given specialty, there may not have been enough dentists responding to make reliable statements about that individual specialty.

Data Collection

The 1988 SDP was initially mailed in April, 1988. Two follow-up mailings to non-respondents were sent in May and June 1988. A telephone follow-up to non-respondents was conducted in July and August, 1988. Coding, hand-editing, and computer processing were completed in October, 1988. The final response rate was computed after the individuals who were either retired, disabled, deceased, not in private practice, or had unknown addresses were eliminated from the sample. The adjusted sample size was used to calculate the final response rate of 43.1%.

Weighting the Sample

Since the proportion of specialists in the sample is higher than the actual percentage in the dental population, it is necessary to account for this imbalance when making statements about the total dental population. This correction is accomplished by developing and applying a weighting factor to each sampled dentist.

Weights were calculated for general practitioners and specialists separately, by dividing the percentage of each in the population by the percentage in the sample. The proportion of general practitioners in the population is 80%, specialists, 20%. The percentage of general practitioners in the sample is 74.9%, of specialists, 25.1%.

The weights were computed as follows:

General Practitioner $.80/.749 = 1.068731$

Specialist $.20/.251 = 0.795392$

These weights were employed in the calculations of means and medians for cases in which general practitioners and specialists were combined (i.e., when statements were made about "all" solo or "all" independent dentists). The weights were also used when percentages of dentists in various categories were computed. In these cases, the totals as well as the percentages are weighted, making the totals smaller or larger than those for the actual sample.

B. General Characteristics of Private Practice Dentistry in the United States, 1987

Of all the nation's dentists who work in the private practice of dentistry, 98.7% do so as a primary occupation. Most (95.8%) work only in a primary practice, 2.6% work in both a primary and secondary practice, while 1.5% work in private practice as a secondary occupation only. Of the dentists working in private practice as a secondary occupation only, 56.5% work primarily as dental school faculty, and 10.9% work as hospital staff. Less than 4% each pursue postgraduate education, intern, work for a health or dental organization, or are employed by a state or local government. A primary occupation unrelated to dentistry was reported by 14.9% of these dentists.

Slightly more than half (53.8%) of the nation's private practitioners are under the age of 45, 19.9% are under the age of 35, and 15.3% are 60 years of age or older. Roughly 64% of current private practitioners graduated from dental school since 1965, and 37.1% have graduated since 1975. Dentists in private practice are distributed relatively equally among the four major U.S. census divisions. About 24.6% are located in the north east, 27.3% in the north central, 26.9% in the south, and 21.2% in the west.

Most dentists (81.9%) practice dentistry on a full-time basis (32 hours per week or more). About 41.1% of the private practitioners reported having worked 40 hours or more per week. On an annual basis, 69.8% of the private practitioners worked 1600 hours or more, while 29.6% worked 2000 hours or more.

As Figure 1 shows, the majority of dentists in private practice (92.7%) are owners of their practices. Of these, 56.3% are sole proprietors, 29.0% are shareholders in an incorporated dental practice, and 7.4% are partners. About 7.3% of private practitioners are nonowners - 4.1% employed as an associate on a salary, commission, or percentage basis and 3.2% as independent contractors.

The solo dental practice is the most typical size of private practice. About 68.5% of the nation's private practitioners are working in a practice with no other dentist, while 20.0% are working with one other dentist, and 11.5% with two or more dentists.

**PERCENTAGE DISTRIBUTION FOR
EMPLOYMENT STATUS OF DENTISTS**

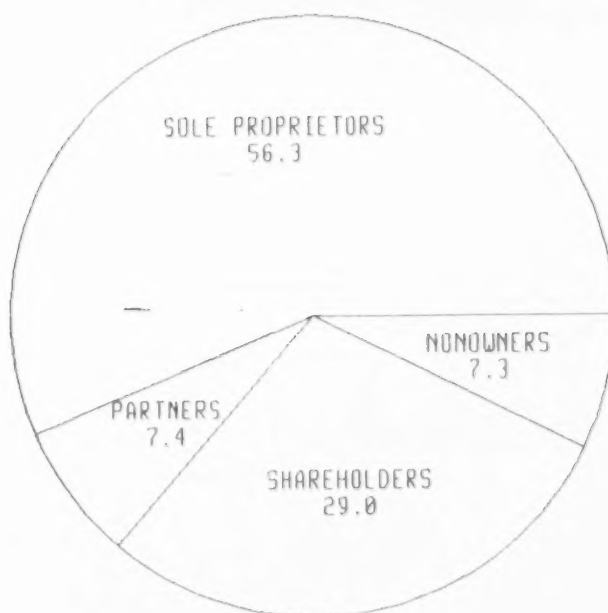


FIGURE 1.

SOURCE: AMERICAN DENTAL ASSOCIATION, 1988 SURVEY OF DENTAL PRACTICE.

II. INCOME FROM THE PRIVATE PRACTICE OF DENTISTRY

A. General

The net income data presented in this report are based on results of the 1988 Survey of Dental Practice and are restricted to those dentists who report that they are in private practice as a primary occupation. Dentists were asked to report their net income earned from private practice and any income earned from other sources in dentistry (e.g., teaching, consulting, and hospitals). Independent dentists (i.e., sole proprietors, partners, and shareholders) reported their net income before personal taxes, while nonowner dentists (i.e., employees, associates, and non-shareholders) reported gross salaries, wages, commissions and percentages from private practice. The reader is cautioned, however, that a transition from what a dentist reports as net income to the gross income of a dental practice cannot be easily made. In the case of a solo dentist (i.e., working with no other dentist in the same practice), the reported net income is the same as the net income of the practice. In the case of an independent dentist working in a nonsolo practice, the reported net income is not the same as the net income of the practice. Gross income of this latter dentist would require an arbitrary allocation of the gross income reported for the practice.

Three different estimates of net income from the private practice of dentistry are contained in this report: (1) net income from the primary practice alone, (2) net income from private practice, and, (3) total net income from all dental sources. Net income from the primary practice is what the dentist reported as income after practice expenses but before personal taxes. Net income from private practice is the net income from the primary practice plus income earned from a secondary private practice. Total net income from all dental sources includes net income from primary practice, net income from secondary practice, and any other income derived from other dental sources, such as teaching in a dental school, consulting, or working as a hospital staff dentist.

B. Net Income of Independent Dentists

Independent dentists, owners in full or part of a practice, comprise 94.4% of the nation's private practitioners who are in private practice as a primary occupation.

The net income of independent dentists in 1987 is reported in Table 1. The means were: primary practice--\$80,190; private practice--\$83,040; and total from dentistry--\$84,210. The difference between the average net income from primary practice and the average net income from all sources was \$4,020.

Table 1

Net Income of Independent Dentists
by Source of Dental Income, 1987

<u>Source of Net Income</u>	<u>Median</u>	<u>Mean</u>	<u>n*</u>	<u>S.D.</u>
Primary Practice	\$70,000	\$80,190	1305	\$51,270
Private Practice	71,000	83,040	1307	63,370
Total from Dentistry	72,000	84,210	1280	63,780

Source: American Dental Association, 1988 Survey of Dental Practice.

A similar table of net income from independent private practice for general practitioners (GPs) and specialists is shown in Table 2**. The median income (from all sources) was \$65,000 for GPs and \$100,000 for specialists. The mean net incomes of both GPs and specialists exceeded the median values. The mean net incomes from primary practice for GPs was \$72,410, which was about 9.7% less than the average for all dentists shown in Table 1. Specialists in primary practice had a mean net income of \$113,460, which exceeded the mean net income of all independent dentists by about 41.5%. The net income that a GP earned from his primary practice represented about 97.8% of the average income earned from all dental sources. Specialists' income from primary practice represents a smaller percentage of the total income from dentistry, 89.3%. Both GPs and specialists derive their net income from a private practice that represents their primary dental occupation.

*Throughout this report, "n" refers to the number of survey respondents.

**This report does not contain statistics for individual specialties. The number of respondents in some specialty groups was too few for statistical analysis.

Table 2

Net Income of Independent General Practitioners and
Independent Specialists by Source of Dental Income, 1987

<u>Source of Net Income</u>	<u>Median</u>	<u>Mean</u>	<u>n</u>	<u>S.D.</u>
<u>General Practitioners</u>				
Primary Practice	\$ 65,000	\$ 72,410	993	\$ 43,570
Private Practice	65,000	73,210	991	48,460
Total from Dentistry	65,000	74,070	971	48,590
<u>Specialists</u>				
Primary Practice	\$100,000	\$113,460	312	\$ 65,940
Private Practice	100,000	124,450	316	94,280
Total from Dentistry	100,000	127,020	309	94,700

Source: American Dental Association, 1988 Survey of Dental Practice.

Technical Note: Net Income of Specialists

The 1988 Survey of Dental Practice: Income from the Private Practice of Dentistry is the updated version of a report that has been produced since 1982. The report documents statistical results about income from the private practice of dentistry. These results are presented in virtually the same format as they have been in the recent past.

The 1988 report contains estimates of 1987 mean and median earnings of all dentists, general practitioners, and specialists. According to the 1988 survey, the 1987 average net income for all specialists from their primary practice was estimated to be \$113,460, while the median net income was \$100,000. These figures were higher than the corresponding 1986 mean and median figures of \$97,920 and \$91,000 reported from the 1987 Survey of Dental Practice.

The 1987 average specialist income of \$113,460 represents a 15.9% increase over the 1986 average and a 9.7% increase over the 1985 average of \$103,390. This variation in average specialist income is primarily due to the survey methodology used and to the number of survey respondents who were dental specialists. A random sample of all specialists combined is selected with no account taken for dental specialties. While specialists are oversampled, the total number of specialists responding to the income questions included 459 in the 1986 survey, 462 in the 1987 survey, and 312 in the 1988 survey. The corresponding number of general practitioner respondents included 1,352 in the 1986 survey, 1,444 in the 1987 survey, and 993 in the 1988 survey. The smaller sample size for specialists means, among other things, that the averages are more sensitive to large and/or small values.

The potential for greater variation in income among specialists (which is also influenced by income variation over different specialties) and the relatively smaller sample of specialists leads to a sampling error (i.e., the error due to the fact that a sample is used rather than sending a survey to all practicing specialists) that is greater among specialists than general practitioners. The variation in the income reported by specialists and the sample size can be used to estimate a degree of confidence that the mean income determined from the sample is a reasonably reliable estimate of the average income of all specialists. In addition to the sample means, an interval around the mean has also been computed that is influenced by the amount of variation in income reported by specialists and the size of the sample of specialists reporting income. The means and intervals shown below are based on two standard errors of the mean income:

<u>Survey Year</u>	<u>Income Year</u>	<u>Mean Income</u>	<u>Size of Interval</u>
1986	1985	\$103,390	+/- \$5,719
1987	1986	97,920	+/- 5,279
1988	1987	113,460	+/- 7,466

The table shows that the average income of specialists is estimated to be \$113,460 plus or minus (+/-) \$7,466. Thus, based on the size of the sample drawn and the variation in income reported by specialists, we can be reasonably confident that the average income of specialists in 1987 falls in a range of \$105,994-\$120,926, a spread of almost \$15,000. The greater variation in reported income among specialists, combined with a smaller number of respondents, has increased the size of the confidence interval compared to both 1985 and 1986.

B. Net Income of Independent Dentists (continued)

An age-earnings profile is a method of examining the relationship between earnings and experience. Earnings of the least experienced dentists are lower than most, and, in general, dental related income increases with experience in practicing dentistry. Earnings tend to be highest among dentists in their forties and to be lower among dentists approaching older age levels who begin to consider full- or part-time retirement from private practice. Table 3 contains the mean income of independent dentists by age of the dentist.

Table 3

Mean Net Income of Independent Dentists by
Age and Source of Dental Income, 1987

Age (years)	<u>Source of Net Income</u>					
	<u>Primary Practice</u>		<u>Private Practice</u>		<u>Total from Dentistry</u>	
	<u>Mean</u>	<u>n</u>	<u>Mean</u>	<u>n</u>	<u>Mean</u>	<u>n</u>
Younger than 35	\$60,940	211	\$62,030	209	\$63,670	203
35-39	82,730	250	88,740	253	90,220	246
40-44	96,450	227	98,800	225	100,110	219
45-49	96,110	155	101,810	154	102,590	152
50-54	87,980	139	86,010	137	87,310	137
55-59	81,680	130	82,450	135	83,110	133
60 or older	58,890	184	62,810	185	63,080	181

Source: American Dental Association, 1988 Survey of Dental Practice.

For each source of net income, the lowest mean incomes occur among dentists with the least and most experience (i.e., the "younger than 35" and "60 or older" age groups). The average net income from primary practice for the "younger than 35" age group was \$60,940. For the "60 or older" group, this figure was \$58,890. The highest mean net income from primary practice occurred in the age group 40-44 years of age (\$96,450). For most age groups, the percentage of income derived from the primary practice ranged from 92-98%.

Income of independent general practitioners and specialists by age group and source of dental income is presented in Table 4.

Table 4

Mean Net Income of Independent General Practitioners and Independent Specialists by Age and Source of Dental Income, 1987

<u>Age (years)</u>	<u>Source of Net Income</u>					
	<u>Primary Practice</u>		<u>Private Practice</u>		<u>Total from Dentistry</u>	
	<u>Mean</u>	<u>n</u>	<u>Mean</u>	<u>n</u>	<u>Mean</u>	<u>n</u>
<u>General Practitioners</u>						
Younger than 35	\$ 60,410	191	\$ 61,290	189	\$ 62,910	183
35-39	76,250	199	81,940	200	82,580	196
40-44	84,140	157	84,420	155	85,690	150
45-49	82,420	99	81,250	96	82,090	95
50-54	78,220	95	76,280	94	76,990	94
55-59	78,250	103	75,470	107	75,540	105
60 or older	55,620	146	56,080	147	56,380	145
<u>Specialists*</u>						
Younger than 40	\$102,880	71	\$109,040	73	\$114,050	70
40-44	133,540	70	141,580	70	142,250	69
45-49	128,620	56	147,540	58	148,490	57
50-54	116,300	44	114,590	43	117,630	43
55 or older	85,540	65	106,500	66	108,920	64

Source: American Dental Association, 1988 Survey of Dental Practice.

The age earning profile of independent specialists tends to differ from the independent GPs and all independents profiles in two respects: (1) an insignificant number of specialists are in private practice before the age of 35 years due to the longer educational requirements; and (2) the range of mean net income of specialists is wider during the maximum income years than it is for GPs in the same age groups.

*For specialists, the age groups "younger than 35" and "35-39" were combined into the "younger than 40" category, due to the small number of specialists in the younger age groups. The last two age groups were combined for the same reason.

The amount of time dentists spend in the practice of dentistry has been examined with regard to productivity (i.e., the amount of dentistry supplied to patients, the level of dental income and the amount of dentist time, and how dentists spend time providing various dental procedures). In 1987, independent dentists in private practice spent, on average, 37.7 hours per week in the practice and 33.5 hours per week in the treatment of patients. On a yearly basis, private practitioners averaged 1,814.7 hours in the primary practice and 1,614.1 hours treating patients*.

Table 5 contains the percentage distribution of independent private practitioners by (1) average hours per week in the practice and (2) average hours per year in the practice.

Table 5

Time Spent by Independent Dentists in Private Practice,
Percentage Distribution by Hours Per Week and
Hours Per Year, 1987

<u>Hours Per Week</u>	<u>Percent</u>	<u>n</u>
Less than 20	1.6%	29
20-29	7.4	134
30-39	49.1	895
40-49	32.0	582
50 or more	9.9	180
Total	100.0	1,820

<u>Hours Per Year</u>		
Less than 1,000	3.5%	63
1,000-1,199	2.4	44
1,200-1,399	6.3	115
1,400-1,599	15.4	281
1,600-1,799	21.6	392
1,800-1,999	20.5	372
2,000-2,199	13.5	246
2,200-2,399	7.3	134
2,400 or more	9.5	173
Total	100.0	1,820

Source: American Dental Association, 1988 Survey of Dental Practice.

*Annual hours per year was determined by multiplying weeks worked per year in the primary practice times hours worked per week. A dentist working 50 weeks per year at the rate of 40 hours per week spends 2,000 hours per year in the practice.

During 1987, approximately 9.0% of independent dentists in private practice spent less than 30 hours per week in the practice, while 91.0% spent 30 or more hours per week in their primary dental practices. About 41.9% of the independent private practitioners spent 40 or more hours per week in the practice. Annually, 27.7% worked less than 1,600 hours, and slightly less than one third (30.3%) worked 2,000 hours or more per year.

Table 6 contains the average net income of all independent dentists in private practice by the amount of time spent in the practice.

Table 6

Mean Net Income of Independent Dentists by Hours Per Week,
Hours Per Year, and Source of Dental Income, 1987

<u>Hours Per Week</u>	<u>All Independent Dentists</u>	<u>General Practitioners</u>	<u>Specialists</u>
Less than 32 hours:			
Primary Practice	\$ 64,790	\$ 54,810	\$ 94,170
Private Practice	62,700	52,090	94,590
Total from Dentistry	64,950	53,670	98,140
32 hours or more:			
Primary Practice	82,670	74,990	117,860
Private Practice	86,450	76,460	131,310
Total from Dentistry	87,390	77,140	133,700
<u>Hours Per Year</u>			
Less than 1,600 hours:			
Primary Practice	\$ 76,320	\$ 67,320	\$107,560
Private Practice	77,060	65,100	117,480
Total from Dentistry	78,680	66,420	119,800
1,600 hours or more:			
Primary Practice	81,590	74,150	116,160
Private Practice	85,240	76,010	127,730
Total from Dentistry	86,230	76,680	130,430

Source: American Dental Association, 1988 Survey of Dental Practice.

As expected, income from private practice was lower among dentists working fewer hours in the practice. This was the case for both hours per week and hours per year. It is still the case, however, that dentists working in a primary private practice earn most of their annual net income from that primary practice, although the percentage is slightly lower for dentists working more hours. Independent dentists working fewer hours per week earn 97.0% of their annual income from the primary practice. Those working more hours earn 94.6% from the primary practice. Table 7 contains the average number of hours and the average age of the dentists for the groups reported in Table 6.

Table 7

Mean Hours Worked and Mean Age
of Independent Dentists, 1987

<u>Hours Per Week</u>	<u>All Independent Dentists</u>	<u>General Practitioners</u>	<u>Specialists</u>
Less than 32 hours:			
Mean age	53.9	54.3	52.5
Mean hours/week	26.0	26.0	26.2
32 hours or more:			
Mean age	45.1	45.0	45.7
Mean hours/week	39.9	39.8	40.3
<u>Hours Per Year</u>			
Less than 1,600 hours:			
Mean age	52.3	52.6	51.3
Mean hours/week	29.1	29.0	29.2
1,600 hours or more:			
Mean age	44.3	44.1	45.0
Mean hours/week	41.1	40.9	41.7

Source: American Dental Association, 1988 Survey of Dental Practice.

The average age of all independent dentists is 46.5 years (median age is 44 years), compared to 53.9 years for all dentists working less than 32 hours per week, and 52.3 years for all dentists working less than 1,600 hours per year. Dentists working the fewest hours per week or per year tend to be older, rather than younger, dentists. This may simply reflect the decision of older dentists to scale down the amount of time in practice in anticipation of total or semi-retirement. Although not shown in these tables, 15.9% of the independent dentists are less than 35 years old, and of these dentists, only 11.0% work less than 32 hours per week while 57.5% worked 40 hours per week or more. Similarly, only 14.3% of the dentists less than 35 years of age worked less than 1,600 hours per year and 47.8% worked 2000 or more hours per year. About 26.8% of the independent private practitioners are 55 years of age or older, and of this group of dentists, 31.7% worked less than 32 hours per week and 48.1% worked less than 1,600 hours per year.

These data seem to suggest that the amount of time that dentists spend in the practice partially reflects a natural work-life cycle. Most of the younger dentists who are working in a primary private practice are doing so on a "full-time" basis in anticipation of building a practice. A significantly larger percentage of the older dentists are working "part-time". Since data regarding dental market conditions was not collected, we cannot say that some dentists are working fewer hours because of a lack of patients or patient visits.

Independent dentists (i.e., dentists who are owners or share in the ownership of a practice) have three practice options. They may practice as unincorporated sole proprietorships (i.e., one owner), partners in an unincorporated partnership, or shareholders in an incorporated practice. Most dentists who are in private practice are owners of a dental practice (92.7%).

Table 8 contains the distribution of independent dentists in private practice by type of practice.

Table 8

Percentage Distribution of Independent Dentists by
Current Employment Status and Initial Employment
Status in the Primary Practice, 1987

<u>Current Employment Status</u>	<u>Percent</u>	<u>n</u>
Sole proprietor	60.5%	1,102
Partner	7.8	142
Shareholder	31.7	576
Total	100.0	1,820
 <u>Initial Employment Status in Current Practice</u>		
Sole proprietor	75.3%	1,370
Partner	7.0	127
Shareholder	6.2	114
Nonshareholder (incorporated)	4.8	87
Employed (unincorporated)	4.5	81
Independent contractor	2.2	41
Total	100.0	1,820

Source: American Dental Association, 1988 Survey of Dental Practice.

Most of the independent dentists currently in private practice are practicing in sole proprietorships (60.5%), the sole owners of the primary practice where they practice. Only about 7.8% of currently practicing dentists are partners in a partnership, and the remaining 31.7% are shareholders in incorporated practices.

In addition to the current practice employment status of private practitioners, data are provided in Table 8 about the employment status of dentists when they first began in their current primary practice. Most (75.3%) started in their current practice as the sole proprietor. The remaining 24.7% started as partners (7.0%), shareholders in an incorporated practice (6.2%), employed dentists in an unincorporated practice (4.5%), nonshareholders in an incorporated practice (4.8%), or independent contractors (2.2%).

Table 9 contains data on the current status of independent practitioners according to their initial employment status in the practice.

Table 9

Current Employment Status of Independent Dentists by
Initial Employment Status in the Current Practice, 1987

Initial Employment Status in Current Practice	Current Employment Status			
	Sole Proprietor	Partner	Share- holder	Total
Sole proprietor	70.7%	3.4%	25.9%	100.0%
Partner	29.9	43.0	27.1	100.0
Shareholder	3.8	1.9	94.3	100.0
Nonshareholder (incorporated)	36.5	14.7	48.8	100.0
Employed (unincorporated)	41.2	21.4	37.4	100.0
Independent contractor	61.0	22.1	16.9	100.0

Source: American Dental Association, 1988 Survey of Dental Practice.

About 75.3% of the independent dentists currently in private practice began in their current practice as sole proprietors. Of these dentists, 70.7% continue to practice as sole proprietors, while 3.4% are now practicing as partners, and 25.9% are now practicing as shareholders in an incorporated practice (Table 9). Note that since reference is made to the "same" practice (i.e., the current primary practice), the data show the changes that have taken place in both the employment status of dentists and the character of the practice.

The data in Table 8 indicate that approximately 11.5% of the currently independent dentists started in a nonownership position in the practice (i.e., employed or nonshareholder). Table 9 indicates that most of these dentists are now practicing as sole proprietors or shareholders in that same practice.

The current employment status of independent dentists in primary practice by age of the dentist is shown in Table 10.

Table 10

Percentage Distribution of Independent Dentists by
Current Employment Status and Age of the Dentist, 1987

Current Employment Status

<u>Age (years)</u>	<u>Sole Proprietor</u>	<u>Partner</u>	<u>Shareholder</u>	<u>Total</u>
Younger than 35	18.5%	28.6%	8.1%	--
35-39	18.2	14.9	19.0	--
40-44	14.8	14.4	21.2	--
45-49	9.3	8.8	17.3	--
50-54	9.2	7.3	13.7	--
55-59	10.3	9.4	11.4	--
60 or older	19.7	16.7	9.3	--
Total	100.0	100.0	100.0	--
Younger than 35	70.1%	13.8%	16.1%	100.0%
35-39	60.6	6.3	33.1	100.0
40-44	53.5	6.6	39.9	100.0
45-49	47.9	5.8	46.3	100.0
50-54	53.3	5.4	41.3	100.0
55-59	59.1	6.8	34.1	100.0
60 or older	73.8	8.0	18.2	100.0

Source: American Dental Association, 1988 Survey of Dental Practice.

Most independent dentists currently in private practice are sole proprietors (60.5%). Among all sole proprietors, about 18.5% are less than 35 years of age, and 19.7% are 60 years of age or older (Table 10, top half). The largest portion of the sole proprietors falls into this over 60 age group. The second largest group falls into the "younger than 35" years of age group.

The bottom portion of Table 10 contains the distribution of independent dentists by type of practice status within each age group. Among dentists with the least experience as private practitioners (i.e., dentists less than 35 years old), sole proprietorship is the most common practice type, representing 70.1% of the practices in this age group. This is similar to

the "60 or older" age group where 73.8% of the dentists are sole proprietors. Within any age group of practitioners, sole proprietorship is the predominant form of dental practice ownership; however, among all other age groups, higher percentages are shareholders than there are in the youngest and oldest age brackets.

Partnerships show no significant pattern. The less than 35 age group shows a slightly higher percentage of partnerships than other age groups (13.8%). The 45-49 years of age category shows the highest percentage of dentists as shareholders in incorporated practices. The younger and older age groups show lower percentages of dentists in this ownership category.

Table 11 contains the mean income of independent dentists practicing as sole proprietors, partners, and shareholders in an incorporated dental practice.

Table 11

Mean Net Income of Independent Dentists by
Employment Status in the Primary Practice and by
Source of Dental Income, 1987

Source of Net Income	Sole Proprietor		Partner		Shareholder	
	Mean	n	Mean	n	Mean	n
<u>All Independent Dentists</u>						
Primary Practice	\$ 67,320	775	\$ 84,170	102	\$104,000	428
Private Practice	67,710	772	88,060	102	111,000	433
Total from Dentistry	68,710	759	91,830	98	112,060	423
Mean Dentist Age	46.8	1,072	44.5	139	46.3	596
<u>General Practitioners</u>						
Primary Practice	\$ 63,380	654	\$ 76,200	75	\$ 93,680	264
Private Practice	63,380	653	80,280	75	95,610	263
Total from Dentistry	64,040	642	83,650	71	96,400	258
Mean Dentist Age	46.9	885	44.1	105	45.8	355
<u>Specialists*</u>						
Primary Practice	\$ 95,940	121	\$ --	--	\$126,320	164
Private Practice	99,640	119	--	--	142,990	170
Total from Dentistry	103,170	117	--	--	144,970	165
Mean Dentist Age	46.6	187	46.4	34	47.2	241

Source: American Dental Association, 1988 Survey of Dental Practice.

*Mean net income is not reported for specialists who are partners because there were too few respondents to allow for reliable statistical analysis.

Regardless of the dentist's employment status, most of the net income is earned from a primary private dental practice. There is, however, variation in income among dentists in different employment arrangements. Although most independent dentists work in sole proprietorships, they earn, on average, lower net incomes than do independent dentists in other practice arrangements. Among all dentists working as shareholders in an incorporated practice, the mean net income from the primary practice was \$84,170, representing 25% more than the corresponding average net income earned by sole proprietors (\$67,320). Among general practitioners, this difference amounts to 20.2%; among specialists the difference in net income between sole proprietors and shareholders is 18.7%.

The mean net income earned by independent dentists in private practice by geographic region of the U.S. is shown in Table 12.

Table 12

Mean Net Income and Mean Age of Independent Dentists
by U.S. Region and Source of Dental Income, 1987

<u>Region</u>	<u>Primary Practice</u>	<u>Private Practice</u>	<u>Total from Dentistry</u>	<u>n</u>	<u>Mean Age</u>
<u>All Independent Dentists</u>					
New England	\$ 80,840	\$ 88,370	\$ 89,910	94	46.7
Middle Atlantic	78,780	79,890	80,620	199	48.5
East North Central	78,490	82,100	82,520	260	46.1
West North Central	69,820	75,460	76,110	101	46.4
South Atlantic	85,640	89,350	90,600	189	45.9
East South Central	70,930	73,360	75,950	55	44.0
West South Central	79,700	82,660	85,040	108	44.8
Mountain	82,170	81,690	82,230	87	44.7
Pacific	84,750	85,060	86,940	201	47.5
<u>General Practitioners</u>					
New England	\$ 77,780	\$ 81,080	\$ 82,360	67	46.4
Middle Atlantic	72,690	74,550	74,460	149	48.7
East North Central	72,190	72,580	72,880	221	46.2
West North Central	59,980	62,040	62,550	83	47.3
South Atlantic	73,940	75,420	75,780	133	45.5
East South Central	64,100	64,200	66,320	42	44.0
West South Central	71,550	72,830	74,510	80	43.8
Mountain	75,930	74,520	75,270	57	43.7
Pacific	76,990	76,680	78,050	157	47.3
<u>Specialists*</u>					
New England**	--	--	--	--	--
Middle Atlantic	\$103,140	\$105,300	\$105,640	50	48.1
East North Central	126,450	152,120	152,750	39	44.9
West North Central**	--	--	--	--	--
South Atlantic	122,960	133,050	136,450	56	47.1
East South Central**	--	--	--	--	--
West South Central**	--	--	--	--	--
Mountain	98,100	99,670	99,670	30	47.6
Pacific	121,950	125,470	129,760	44	48.3

Source: American Dental Association, 1988 Survey of Dental Practice.

*The mean net income of specialists by region is less reliable than that of GPs due to the smaller sample of specialists per geographic region.

**Income levels are not reported for specialists in these regions because there were too few respondents to allow for reliable statistical analysis.

The mean net income from primary practice for all independent dentists was shown to be \$80,190 in Table 1. The mean net income was higher than the national average in four of the nine regions, including New England (\$80,840), South Atlantic (\$85,640), Mountain (\$82,170), and the Pacific (\$84,750). The remaining five regions had mean net incomes lower than the national average. Among independent general practitioners, five regions had mean net incomes higher than the national average net income of general practitioners (\$72,410 - Table 2). For independent specialists, the national average net income from a primary practice was \$113,460.

Note that four regions did not contain enough specialists to allow meaningful statistical analysis.

In general, the source of a dentist's net income is not affected by the region where he practices. This is true, on average, for all independent dentists, who earned between 90% and 99% of net income from primary practice.

C. Net Income of Solo Dentists

The solo dentist practice is the most typical size of private practice. About 68.5% of all the nation's private practitioners were working in a practice with no other dentist.

The net income of solo dentists in 1987 is reported in Table 13. Mean income exceeds the median values from \$8,230 for total net income to \$8,630 for primary practice. The mean net income from primary practice was \$76,680 and represented 98.3% of the average income from all dental sources.

Table 13

Mean Net Income of Solo Dentists
by Source of Dental Income, 1987

<u>Source of Net Income</u>	<u>Median</u>	<u>Mean</u>	<u>n</u>	<u>S.D.</u>
Primary Practice	\$68,050	\$76,680	974	\$50,690
Private Practice	67,750	77,280	975	54,490
Total from Dentistry	69,750	77,980	960	54,720

Source: American Dental Association, 1988 Survey of Dental Practice.

The mean net income for solo general practitioners and specialists is shown in Table 14. The median net income for solo GPs (from primary practice) was \$65,000, which was lower than the median net income of all solo dentists (\$68,050).

Table 14

Mean Net Income of Solo General Practitioners and
Solo Specialists by Source of Dental Income, 1987

<u>Source of Net Income</u>	<u>Median</u>	<u>Mean</u>	<u>n</u>	<u>S.D.</u>
<u>General Practitioners</u>				
Primary Practice	\$ 65,000	\$ 70,050	758	\$ 43,420
Private Practice	64,000	69,370	757	44,000
Total from Dentistry	63,500	69,900	746	44,060
<u>Specialists</u>				
Primary Practice	\$ 99,980	\$107,910	216	67,210
Private Practice	100,000	114,200	218	77,630
Total from Dentistry	100,000	115,860	214	77,970

Source: American Dental Association, 1988 Survey of Dental Practice.

The median net income of solo specialists (from all sources) was \$100,000. The mean net incomes of both solo GPs and solo specialists exceeded both median values. The mean net income from primary practice for solo GPs was \$70,050, which was about 8.6% less than the average for all dentists shown in Table 13. Specialists in solo practice had a mean net income of \$107,910, which exceeded the mean net income of all solo dentists by about 40.7%. Both solo GPs and solo specialists derive their net income from a private practice that represents their primary dental occupation.

Table 15

Mean Net Income of Solo Dentists by Age and
by Source of Dental Income, 1987

Age (years)	<u>Primary Practice</u>		<u>Private Practice</u>		<u>Total from Dentistry</u>	
	<u>Mean</u>	<u>n</u>	<u>Mean</u>	<u>n</u>	<u>Mean</u>	<u>n</u>
Younger than 35	\$60,800	154	\$61,470	152	\$62,220	150
35-39	78,560	186	80,160	188	80,930	184
40-44	94,000	170	95,290	168	96,440	163
45-49	88,010	114	89,430	113	90,160	111
50-54	82,420	99	80,000	97	80,910	97
55-59	80,770	105	81,760	110	82,170	110
60 or older	55,900	142	55,650	143	55,940	141

Source: American Dental Association, 1988 Survey of Dental Practice.

The lowest mean net income occurs among solo dentists with the most experience (i.e., the "60 or older" age group). Table 15 shows that the average net income from primary practice for the "60 or older" age group was \$55,900. The highest mean net income from primary practice occurred in the 40-44 age group. The youngest solo dentists earned an average of \$60,800 from primary practice. Regardless of the dollar amounts earned, all solo dentists earn most of their income from a primary dental practice.

Income from dentistry by dentist age, for solo general practitioners and solo specialists, is shown in Table 16.

Table 16

Mean Net Income of Solo General Practitioners and
Solo Specialists by Age and Source of Dental Income, 1987

Age (years)	<u>Source of Net Income</u>					
	<u>Primary Practice</u>		<u>Private Practice</u>		<u>Total from Dentistry</u>	
	<u>Mean</u>	<u>n</u>	<u>Mean</u>	<u>n</u>	<u>Mean</u>	<u>n</u>
<u>General Practitioners</u>						
Younger than 35	\$ 60,480	138	\$ 60,960	136	\$ 61,620	134
35-39	72,030	150	71,680	151	71,890	148
40-44	83,470	118	83,390	116	84,740	112
45-49	75,420	79	74,980	77	75,870	76
50-54	74,200	70	72,090	69	72,730	69
55-59	77,800	84	74,440	88	74,520	88
60 or older	54,100	117	53,780	118	53,900	117
<u>Specialists</u>						
Younger than 40*	\$101,120	54	\$109,950	55	\$113,000	54
40-44	126,110	52	130,980	52	130,960	51
45-49	126,180	35	130,960	36	131,840	35
50 or older	91,670	75	97,650	75	99,990	74

Source: American Dental Association, 1988 Survey of Dental Practice.

*For specialists, the age groups "younger than 35" and "35-39" were combined into the "younger than 40" category, due to the small number of specialists in the younger age groups. The last three age groups were combined for the same reason.

The age earnings profile of solo GPs is similar to that of all solo dentists in Table 15. The mean income of solo GPs is lower than the income of all solo dentists, reflecting the absence of the specialists' income. Solo GP mean net income from primary practice reaches a maximum in the 40-44 year old age group, and a minimum in the 60 or older age group.

Solo dentists in private practice spend an average of 37.6 hours per week in the practice and 33.5 hours per week treating patients. Solo practitioners average 1,811.1 hours per year in the primary practice and 1,615.4 hours per year treating patients*.

Table 17 contains the percentage distribution of solo practitioners by: (1) average hours per week in the private practice and, (2) average hours per year in the private practice.

Table 17

Time Spent by Solo Dentists in Private Practice, Percentage Distribution by Hours Per Week and Hours Per Year, 1987

<u>Hours Per Week</u>	<u>Percent</u>	<u>n</u>
Less than 20	1.9%	25
20-29	7.4	99
30-39	49.1	658
40-49	32.3	433
50 or more	9.3	124
Total	100.0	1,339

<u>Hours Per Year</u>		
Less than 1,000	3.8%	50
1,000-1,199	2.4	32
1,200-1,399	5.8	78
1,400-1,599	15.2	204
1,600-1,799	21.2	284
1,800-1,999	21.7	290
2,000-2,199	13.6	182
2,200-2,399	7.2	97
2,400 or more	9.1	122
Total	100.0	1,339

Source: American Dental Association, 1988 Survey of Dental Practice.

*Annual hours per year was determined by multiplying weeks worked per year in the primary practice by hours worked per week. A dentist working 50 weeks per year at the rate of 40 hours per week spends 2,000 hours per year in the practice.

In 1987, about 9.3% of solo dentists spent less than 30 hours per week in the practice, 90.7% spent 30 or more hours per week, and 41.6% spent 40 or more hours per week in the practice. Annually, 27.2% of solo practitioners worked less than 1,600 hours per year, while 72.8% worked 1,600 or more hours per year.

Table 18 contains average net income of solo dentists in private practice by the amount of time worked per week in the practice.

Table 18

Mean Net Income of Solo Dentists by Hours Per Week,
Hours Per Year, and Source of Dental Income, 1987

<u>Hours Per Week</u>	<u>All Solo Dentists</u>	<u>General Practitioners</u>	<u>Specialists</u>
Less than 32 hours:			
Primary Practice	\$ 61,660	\$ 52,050	\$ 93,460
Private Practice	60,700	49,710	98,860
Total from Dentistry	62,400	50,820	102,470
32 hours or more:			
Primary Practice	79,190	72,820	111,300
Private Practice	80,180	72,570	117,760
Total from Dentistry	80,660	72,950	118,940
 <u>Hours Per Year</u>			
Less than 1,600 hours:			
Primary Practice	\$ 70,230	\$ 62,160	\$101,600
Private Practice	70,420	59,700	111,240
Total from Dentistry	71,680	60,590	113,690
1,600 hours or more:			
Primary Practice	78,910	72,660	110,630
Private Practice	79,710	72,610	115,520
Total from Dentistry	80,200	72,990	116,830

Source: American Dental Association, 1988 Survey of Dental Practice.

Incomes from private practice were lower among solo dentists working fewer hours in the practice. This was the case for both hours per week and hours per year. It is still the case that solo dentists in private practice earn most of their annual net income from their primary practice. Table 19 contains the average number of hours worked and the average age of the solo dentists for the groups reported in Table 18.

Table 19

Mean Hours Worked and Mean Age
of Solo Dentists in Private Practice, 1987

<u>Hours Per Week</u>	<u>All Solo Dentists</u>	<u>General Practitioners</u>	<u>Specialists</u>
Less than 32 hours:			
Mean age	55.1	55.7	53.0
Mean hours/week	25.8	25.6	26.3
32 hours or more:			
Mean age	45.4	45.4	45.5
Mean hours/week	39.7	39.8	39.7
 <u>Hours Per Year</u>			
Less than 1,600 hours:			
Mean age	53.6	54.1	51.8
Mean hours/week	28.8	28.7	29.3
1,600 hours or more:			
Mean age	44.8	44.4	44.7
Mean hours/week	40.8	40.8	40.9

Source: American Dental Association, 1988 Survey of Dental Practice.

Solo dentists who worked less than 32 hours per week or who worked less than 1,600 hours per year were, on average, older than other solo dentists. The average age of solo dentists is 47.0 years, compared to 55.1 years for solo dentists working less than 32 hours per week, and 53.6 years for solo dentists working less than 1,600 hours per year. The decision of older dentists to scale down the amount of time spent in the practice may be in anticipation of total or semi-retirement. These data also seem to suggest that the amount of time dentists spend in the practice partially reflects a natural work life cycle.

Solo dentists have two ownership options. They may practice as unincorporated sole proprietors (i.e., the only owner of the practice) or as shareholders in an incorporated practice.

Table 20 contains information about the current practice status of solo dentists in 1987. In addition, data is provided concerning practice status when the dentists first began in their "current" primary practice.

Table 20

Percentage Distribution of Solo Dentists by
Current Employment Status and Initial Employment
Status in Current Primary Practice, 1987

<u>Current Employment Status</u>	<u>Percent</u>	<u>n</u>
Sole proprietor	71.8%	962
Shareholder	28.2	377
Total	100.0	1,339

Initial Employment Status
in Current Practice

Sole proprietor	84.8%	1,136
Partner	3.3	44
Shareholder	4.9	65
Nonshareholder (incorporated)	2.7	36
Employed (unincorporated)	2.7	37
Independent contractor	1.6	21
Total	100.0	1,339

Source: American Dental Association, 1988 Survey of Dental Practice.

Most of the dentists currently in solo private practice are practicing in sole proprietorships (71.8%). The additional 28.2% are solo shareholders in an incorporated practice.

In addition to the current practice (employment) status of solo practitioners, data are provided in Table 20 about the employment status of dentists when they first began in their current solo practice. More than 4 out of 5 practitioners (84.8%) started in their current practice as sole proprietors. The remaining 15.2% started as partners (3.3%), shareholders in an incorporated practice (4.9%),

employed dentists in an unincorporated practice (2.7%), nonshareholders in an incorporated practice (2.7%), or on an independent contractor basis (1.6%).

Table 21 contains data on the current status of practitioners according to their initial status in the practice.

Table 21

Current Employment Status of Solo Dentists
by Initial Employment Status in the
Current Practice, 1987

<u>Initial Employment Status in Current Practice</u>	<u>Current Employment Status</u>		
	<u>Sole Proprietor</u>	<u>Share- holder</u>	<u>Total</u>
Sole proprietor	75.8%	21.2%	100.0%
Partner	64.3	35.7	100.0
Shareholder	6.6	93.4	100.0
Nonshareholder (incorporated)	65.0	35.0	100.0
Employed (unincorporated)	66.5	33.5	100.0
Independent contractor	96.2	3.8	100.0

Source: American Dental Association, 1988 Survey of Dental Practice.

As indicated in Table 20, 84.8% of solo dentists in private practice began in their current practice as a sole proprietors. Of these dentists, 75.8% continue to practice as sole proprietors, while 21.2% are now practicing as shareholders in a solo incorporated practice.

The current employment status of solo dentists in private practice by age of the dentists is shown in Table 22.

Table 22

Percentage Distribution of Solo Dentists by
Current Employment Status and Age of the Dentist, 1987

<u>Current Employment Status</u>			
<u>Age (years)</u>	<u>Sole Proprietor</u>	<u>Shareholder</u>	<u>Total</u>
Younger than 35	17.8%	6.7%	--
35-39	18.5	17.7	--
40-44	14.8	22.2	--
45-49	9.2	18.6	--
50-54	8.1	13.1	--
55-59	11.0	13.1	--
60 or older	20.6	8.6	--
Total	100.0	100.0	--
Younger than 35	87.2%	12.8%	100.0%
35-39	72.8	27.2	100.0
40-44	63.0	37.0	100.0
45-49	56.0	44.0	100.0
50-54	61.1	38.9	100.0
55-59	68.3	31.7	100.0
60 or older	86.0	14.0	100.0

Source: American Dental Association, 1988 Survey of Dental Practice.

Most dentists currently in solo practice are also sole proprietors (Table 20). Among all sole proprietors, 17.8% are less than 35 years of age, and 20.6% are 60 years of age or older (Table 22, top half). The percentage of solo dentists who are sole proprietors tends to decline after the age of 35, to a low of 8.1% in the age group 50-54. The percentage of sole proprietor dentists then rises to a high of 20.6% among dentists 60 years of age or older. The age distribution of solo shareholders reflects a somewhat different pattern. The percentage of dentists who are solo shareholders increases to a high of 22.2% among dentists aged 40-44 and then declines throughout the remaining age profiles.

Table 23 contains the mean net income of solo dentists practicing as sole proprietors and shareholders in an incorporated dental practice.

Table 23

Mean Net Income of Solo Dentists by Employment Status in the Primary Practice and by Source of Dental Income, 1987

<u>Source of Net Income</u>	<u>Sole Proprietor</u>		<u>Shareholder</u>	
	<u>Mean</u>	<u>n</u>	<u>Mean</u>	<u>n</u>
<u>All Solo Dentists</u>				
Primary Practice	\$ 66,510	678	\$101,320	296
Private Practice	66,310	676	103,630	299
Total from Dentistry	67,020	666	104,360	294
Mean Dentist Age	47.1	938	46.6	390
<u>General Practitioners</u>				
Primary Practice	\$ 62,570	570	\$ 92,750	188
Private Practice	61,870	570	92,250	187
Total from Dentistry	62,370	562	92,890	184
Mean Dentist Age	47.2	771	46.2	234
<u>Specialists</u>				
Primary Practice	\$ 94,460	108	\$121,370	108
Private Practice	98,380	106	129,180	112
Total from Dentistry	100,750	104	130,150	110
Mean Dentist Age	46.3	167	47.5	156

Source: American Dental Association, 1988 Survey of Dental Practice.

Regardless of employment status of the solo dentists, most of the dental net income is earned from a primary private dental practice. There is, however, variation in income among dentists in different employment arrangements. Most solo dentists work in sole proprietorships and, on average, earn net incomes lower than dentists

in other practice arrangements. Among solo dentists working as solo shareholders in an incorporated practice, the mean net income from the primary practice was \$101,320, representing about 52% more than the corresponding net income earned by sole proprietors (\$66,510). Among solo general practitioners this difference amounts to 48%, and among solo specialists solo shareholders' net income is 28% higher than sole proprietors' net income.

The mean net income earned by solo dentists in private practice by geographic region of the U.S. is shown in Table 24.

Table 24

Mean Net Income and Mean Age of Solo Dentists,
by U.S. Region and Source of Dental Income, 1987

<u>Region</u>	<u>Primary Practice</u>	<u>Private Practice</u>	<u>Total from Dentistry</u>	<u>n</u>	<u>Mean Age</u>
<u>All Solo Dentists</u>					
New England	\$ 74,500	\$ 79,600	\$ 80,150	64	48.4
Middle Atlantic	72,040	72,250	72,010	142	49.8
East North Central	73,290	70,820	71,170	191	46.9
West North Central	62,510	62,710	62,480	74	47.2
South Atlantic	84,880	87,060	87,980	143	45.4
East South Central	75,270	78,100	80,420	44	43.6
West South Central	77,570	81,220	82,770	87	45.0
Mountain	80,210	79,370	80,000	74	44.9
Pacific	84,020	83,910	85,410	150	47.8
<u>General Practitioners</u>					
New England	\$ 74,080	\$ 71,080	\$ 71,030	47	48.1
Middle Atlantic	65,310	65,020	65,430	107	50.4
East North Central	69,210	67,480	67,720	168	47.1
West North Central	56,990	57,210	56,870	64	48.1
South Atlantic	75,660	75,350	75,730	103	45.0
East South Central	67,830	67,600	69,310	34	43.7
West South Central	69,290	70,800	71,610	65	44.0
Mountain	73,960	72,270	73,140	49	44.1
Pacific	76,220	75,810	77,010	118	47.8
<u>Specialists*</u>					
New England**	\$ --	\$ --	\$ --	--	--
Middle Atlantic	99,710	101,990	100,420	35	47.7
East North Central	--	--	--	--	--
West North Central**	--	--	--	--	--
South Atlantic	116,810	125,650	128,520	40	46.5
East South Central**	--	--	--	--	--
West South Central**	--	--	--	--	--
Mountain**	--	--	--	--	--
Pacific	122,680	124,390	127,630	32	47.9

Source: American Dental Association, 1988 Survey of Dental Practice.

*The mean net income of specialists by region is less reliable than that of GPs due to the smaller sample of specialists per geographic region.

**Income levels are not reported for specialists in these regions because there were too few respondents to allow for reliable statistical analysis.

The mean net income from primary practice for all solo dentists was shown to be \$76,680 (Table 13). The mean net income was lower than the national average in five of the nine regions, including New England (\$74,500), Middle Atlantic (\$72,040), East North Central (\$73,290), West North Central (\$62,510) and East South Central (\$75,270). The remaining four regions had mean net incomes that exceeded the national average. Among solo general practitioners, five regions had mean net incomes lower than the national average for solo general practitioners, \$70,050. Solo specialists income was lower than the national average (\$107,910) in the Middle Atlantic region (\$99,710).

In general, the source of solo dentist's net income is not affected by the region where the dentists practice. This is true, on average, for all solo dentists, who earned between 92% and 99% of net income from a primary practice.

D. Net Income of Nonowner Dentists

The 1987 net income of nonowner dentists is reported in Table 25. The mean and median incomes for all nonowner dentists and nonowner general practitioners are shown separately. The median net income for all nonowner dentists in the primary practice was \$38,500 and the mean net income was \$42,120. The mean primary practice income represented 96.7% of the average income from all dental sources.

For nonowner general practitioners, the mean primary practice income of \$41,090 exceeds the median, \$38,000, by \$3,090. For nonowner general practitioners, the primary practice net income represents 97.5% of the average net income from all dental sources.*

Table 25

Mean Net Income of Nonowner Dentists by Source of Dental Income, 1987

<u>Source of Net Income</u>	<u>Median</u>	<u>Mean</u>	<u>n</u>	<u>S.D.</u>
<u>All Nonowner Dentists</u>				
Primary Practice	\$38,500	\$42,120	44	\$19,620
Private Practice	38,000	41,940	41	19,580
Total from Dentistry	39,500	43,550	40	21,150
<u>General Practitioners</u>				
Primary Practice	\$38,000	\$41,090	41	\$18,330
Private Practice	38,000	40,820	38	18,220
Total from Dentistry	39,000	42,140	37	18,870

Source: American Dental Association, 1988 Survey of Dental Practice.

*Results are not reported for nonowner specialists because there were too few respondents to allow for reliable statistical analysis.

Table 26

Time Spent by Nonowner Dentists in Private Practice,
Percentage Distribution by Hours Per Week and
Hours Per Year, 1987

<u>Hours Per Week</u>	<u>Percent</u>	<u>n</u>
Less than 40	56.2%	33
40 or more	43.8	25
Total	100.0	58

<u>Hours Per Year</u>		
Less than 2,000	68.7%	40
2,000 or more	31.3	18
Total	100.0	58

Source: American Dental Association, 1988 Survey of Dental Practice.

In 1987, nonowner dentists spent, on average, 35.2 hours per week in the primary practice, 31.6 hours of which were spent treating patients. Annually, nonowner dentists spent 1,693.8 hours in the practice and 1,519.7 hours treating patients.* Approximately, 89.8% of time spent in the practice was spent treating patients.

*Annual hours per year was determined by multiplying weeks worked per year in the primary practice times hours worked per week. A dentist working 50 weeks per year at the rate of 40 hours per week spends 2,000 hours per year in the practice.

E. Net Income of Independent Contractors

The 1987 net income of independent contractor dentists is reported in Table 27. There were too few independent contractor respondents to break analyses into groups of general practitioners and specialists. The median net income for all independent contractors from the primary practice was \$51,000 and the mean net income was \$55,210. The mean exceeded the median by \$4,210 and represented 84.2% of the average income from all dental sources.

Table 27

Mean Net Income of Independent Contractors
by Source of Dental Income, 1987

<u>Source of Net Income</u>	<u>Median</u>	<u>Mean</u>	<u>n</u>	<u>S.D.</u>
Primary Practice	\$51,000	\$55,210	32	\$33,100
Private Practice	51,000	55,410	32	32,690
Total from Dentistry	53,600	65,560	32	56,010

Source: American Dental Association, 1988 Survey of Dental Practice.

F. Gross Income of Independent Dentists

The gross income figures for independent dentists are reported as gross income per owner dentist. The gross income of each practice has been equally distributed among all owner dentists working in the practice. This is not the only possible way of allocating practice resources and it may not accurately represent all practices. The gross income per owner dentist is a rate constructed by dividing the practice gross income by the number of owner dentists in that practice.

The primary practice average gross income per independent owner dentist is presented in Table 28. The average for all independent dentists was \$226,910. The average for general practitioners was \$208,240, which was about 8% less than the average for all independent dentists. Specialists gross income averaged \$307,140, exceeding the mean of all independent dentists by 35%. The mean, in all cases, exceeded the median values.

Table 28

Independent Dentists' Primary Practice Gross
Income Per Owner Dentist, 1987

	<u>Mean</u>	<u>Median</u>	<u>n</u>	<u>Standard Deviation</u>
All Independent Dentists	\$226,910	\$202,000	1,201	\$141,830
General Practitioners	208,240	188,000	915	120,450
Specialists	307,140	282,500	286	189,780

Source: American Dental Association, 1988 Survey of Dental Practice.

The average gross income per independent dentist by age is presented in Table 29. For general practitioners, earnings were highest in the 40-44 age group where the average net income from primary practice was \$238,360. Among the specialists, the dentists in the 50-54 age group were earning the highest average income (\$347,740). Dentists 60 years of age and older and those less than 35 had the lowest gross incomes.

Table 29

Independent Dentists' Primary Practice Gross
Income Per Owner Dentist by Age, 1987

<u>Age</u> <u>(years)</u>	<u>Practice Gross Income</u>	
	<u>Mean</u>	<u>n</u>
<u>All Independent Dentists</u>		
Younger than 35	\$199,360	202
35-39	244,850	236
40-44	265,150	216
45-49	261,880	146
50-54	253,580	129
55-59	203,780	114
60 or older	144,280	151
<u>General Practitioners</u>		
Younger than 35	\$200,020	183
35-39	229,980	185
40-44	238,360	148
45-49	231,530	91
50-54	227,490	94
55-59	189,880	91
60 or older	132,270	120
<u>Specialists</u>		
Younger than 40*	\$283,020	70
40-44	343,500	68
45-49	329,350	55
50-54	347,740	35
55 and older	236,980	54

Source: American Dental Association, 1988 Survey of Dental Practice.

Primary practice gross income per dentist for independent dentists by geographic region is presented in Table 30. Four of the nine regions had average gross incomes that exceeded the national average (\$226,910) for all independent dentists.

*For specialists, the age groups "younger than 35" and "35-39" were combined into the "younger than 40" category, due to the small number of specialists in the younger age groups. The last two age groups were combined for the same reason.

Table 30

Independent Dentists' Primary Practice Gross
Income Per Owner Dentist by Region, 1987

	<u>Mean</u>	<u>n</u>
<u>Region</u>	<u>All Independent Dentists</u>	
New England	\$235,440	91
Middle Atlantic	210,490	169
East North Central	208,840	239
West North Central	179,090	94
South Atlantic	252,550	176
East South Central	199,010	50
West South Central	222,490	98
Mountain	258,490	83
Pacific	255,920	192
	<u>General Practitioners</u>	
New England	\$225,720	66
Middle Atlantic	196,570	129
East North Central	194,550	201
West North Central	153,720	75
South Atlantic	221,040	126
East South Central	189,250	38
West South Central	208,680	71
Mountain	234,120	57
Pacific	241,890	148
	<u>Specialists</u>	
New England*	--	--
Middle Atlantic	\$270,820	40
East North Central	310,420	38
West North Central*	--	--
South Atlantic	359,260	50
East South Central*	--	--
West South Central	--	--
Mountain*	--	--
Pacific	319,360	44

Source: American Dental Association, 1988 Survey of Dental Practice.

*Results are not reported for specialists in these regions because there were too few respondents to allow for reliable statistical analysis.

Table 31 contains the average primary practice gross income per owner dentist for independent sole proprietors, partners, and shareholders in an incorporated practice. Independent dentists working in sole proprietorships earn less than independent dentists who are shareholders in incorporated practices. Shareholders gross income per owner dentist was 57.2% higher than that of dentists in sole proprietorships. Among general practitioners, this difference amounts to 51.5%; among specialists, there is a 38.4% difference in gross income per dentist between sole proprietors and shareholders.

Table 31

Independent Dentists' Primary Practice Gross
Income Per Owner Dentist by Employment Status, 1987

<u>Employment Status</u>	<u>Mean</u>	<u>n</u>
<u>All Independent Dentists</u>		
Sole Proprietor	\$191,860	714
Partner	191,690	89
Shareholder	301,650	398
<u>General Practitioners</u>		
Sole Proprietor	\$182,590	602
Partner	181,670	63
Shareholder	276,710	250
<u>Specialists</u>		
Sole Proprietor	\$258,830	112
Partner*	--	--
Shareholder	358,250	148

Source: American Dental Association, 1988 Survey of Dental Practice.

*Gross income per owner for specialist partners is not reported because there were too few respondents to allow for reliable statistical analysis.

G. Gross Income of Solo Dentists

The solo dentist practice is the most typical size of private practice. About 68.5% of the nation's private practitioners were working in a practice with no other dentist in 1987.

Statistics on solo dentists' gross income are presented in Table 32. The average practice gross income for the solo dentist is \$211,330. The solo general practitioner averaged \$194,240 which is 8.1% less than the average for all solo dentists. Specialists in solo practice had a mean gross income of \$293,630 which exceeded the mean for all solo dentists by about 38.9%. The mean in all instances exceeded the median.

Table 32

Solo Dentists' Primary Practice Gross Income, 1987

	<u>Mean</u>	<u>Median</u>	<u>n</u>	<u>S.D.</u>
All Solo Dentists	\$211,330	\$192,000	894	\$127,300
Solo General Practitioners	194,240	180,000	699	107,690
Solo Specialists	- 293,630	260,000	195	171,740

Source: American Dental Association, 1988 Survey of Dental Practice.

The average practice gross income for solo dentists by age is reported in Table 33. The solo dentists who are 60 years of age and older reported the lowest gross income. Gross income increases through the age group 40-44, and then declines in subsequent age groups. This pattern holds true for solo general practitioners, but not for specialists. Solo specialist income reaches a maximum in the 45-49 age group, and then declines as age increases. For specialists, the "younger than 40" age group shows the lowest gross income.

Table 33

Solo Dentists' Primary Practice Gross
Income by Age, 1987

Age (years)	Practice Gross Income	
	Mean	n
<u>All Solo Dentists</u>		
Younger than 35	\$189,910	147
35-39	229,240	175
40-44	248,110	162
45-49	240,900	108
50-54	232,160	89
55-59	197,680	93
60 or older	133,290	117
<u>General Practitioners</u>		
Younger than 35	\$190,720	132
35-39	214,020	139
40-44	225,350	113
45-49	212,300	74
50-54	202,580	67
55-59	179,290	74
60 or older	129,190	98
<u>Specialists</u>		
Younger than 40*	\$270,590	51
40-44	318,630	49
45-49	324,540	34
50 and older	273,740	60

Source: American Dental Association, 1988 Survey of Dental Practice.

*For specialists, the age groups "younger than 35" and "35-39" were combined into the "younger than 40" category, due to the small number of specialists in the younger age groups. The last three age groups were combined into the "50 or older" category for the same reason.

Primary practice gross income by geographic region is reported in Table 34. Solo dentists in four regions had a primary practice gross income higher than the national average of \$211,330. These were the South Atlantic, West South Central, Mountain, and Pacific regions. Solo general practitioners in four regions reported a practice gross income higher than the national average of \$194,240, while solo specialists reported practice gross incomes exceeding the mean of \$293,630 in two regions.

Table 34

Solo Dentists' Primary Practice Gross
Income by Region, 1987

	<u>Mean</u>	<u>n</u>
<u>Region</u>	<u>All Solo Dentists</u>	
New England	\$191,470	62
Middle Atlantic	185,140	119
East North Central	184,420	171
West North Central	158,180	68
South Atlantic	238,810	133
East South Central	202,680	39
West South Central	222,740	79
Mountain	258,820	72
Pacific	248,390	147
	<u>General Practitioners</u>	
New England	\$184,890	47
Middle Atlantic	169,110	93
East North Central	175,730	149
West North Central	144,720	58
South Atlantic	211,400	96
East South Central	188,290	30
West South Central	210,250	58
Mountain	232,570	50
Pacific	232,160	115
	<u>Specialists</u>	
New England*	--	--
Middle Atlantic*	--	--
East North Central*	--	--
West North Central*	--	--
South Atlantic	\$334,360	37
East South Central*	--	--
West South Central*	--	--
Mountain*	--	--
Pacific	326,760	32

Source: American Dental Association, 1988 Survey of Dental Practice.

*Gross income is not reported for specialists in these regions because there were too few respondents to allow for reliable statistical analysis.

Although most solo dentists are sole proprietors, the solo dentists who are sole shareholders in an incorporated practice earn, on average, a 62% higher practice gross income than the sole proprietors. The average gross incomes by type of practice are presented in Table 35.

Table 35

Solo Dentists' Primary Practice Gross Income
by Employment Status, 1987

<u>Employment Status</u>	<u>Mean</u>	<u>n</u>
<u>All Solo Dentists</u>		
Sole Proprietor	\$178,750	622
Shareholder	289,770	272
<u>General Practitioners</u>		
Sole Proprietor	\$169,120	522
Shareholder	268,320	177
<u>Specialists</u>		
Sole Proprietor	\$246,300	100
Shareholder	343,450	95

Source: American Dental Association, 1988 Survey of Dental Practice.

The solo general practitioner who is a sole shareholder reported a practice gross income 58.7% higher than the general practitioner who is sole proprietor. The solo specialist who is a shareholder reported a practice gross income 39.4% higher than the sole proprietor.

III. SUMMARY OF SELECTED RESULTS

The level and growth of dental incomes are indicators of the economic health of practicing dentists and are influential in decision-making by individuals contemplating future entry into the dental profession. This report contains an examination of the level of income from the private practice of dentistry in the United States. The findings are based on the results of the American Dental Association's 1988 Survey of Dental Practice. Selected summary findings contained in this report are presented below.

A. General Characteristics of Dentists in Private Practice in the United States

- Most of the nation's dentists who work in private practice do so as a primary dental occupation (98.7%).
- Most (92.7%) private practitioners are owners or share in the ownership of the practice where they work. Only 4.1% of private dentists work as associate (nonowner) dentists in a private practice as a primary occupation, and 3.2% work as independent contractors.
- Being a solo practitioner (i.e., the only dentist in the private practice) is the choice of 68.5% of the nation's private practitioners. About 20.0% work with one other dentist in the practice, and 11.5% work with more than one other dentist.
- Most private practicing dentists work, on average, 32 or more hours per week (81.9%) and more than 1,600 hours per year (69.8%).
- Approximately 19.9% of all private practitioners are under the age of 35; 53.7% are under the age of 45; and about 15.3% are 60 years of age or older.
- Approximately 64.1% of the nation's private practicing dentists graduated from dental school since 1965.

B. Income from the Private Practice of Dentistry

- Figures 2-7 illustrate mean net income from primary practice for independent and solo dentists in various groups. Figure 2 shows that mean net income peaks for independent dentists in the 40-44 age group. For independent dentists, mean net income varies only slightly across the four U.S. regions (Figure 3).

- Figure 4 shows that income peaks in the 40-44 age group for solo dentists also. Again, income varies slightly across the four U.S. regions (Figure 5).
- Figure 6 illustrates income levels for independent and solo dentists, broken down by specialty status. For both general practitioners and specialists, independent dentists have the highest net income levels. Figure 7 shows that for dentists working part-time (less than 32 hours per week) or full-time (32 hours or more per week), independents, again, have the highest net income levels.

FIGURE 2.
MEAN NET INCOME BY AGE GROUP
INDEPENDENT DENTISTS, 1987

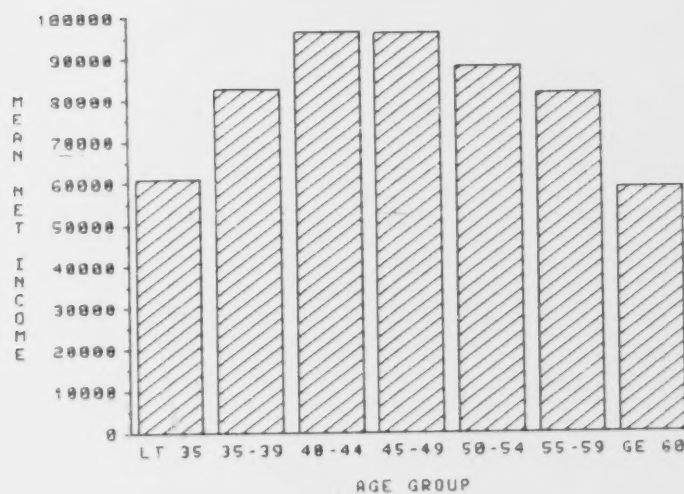
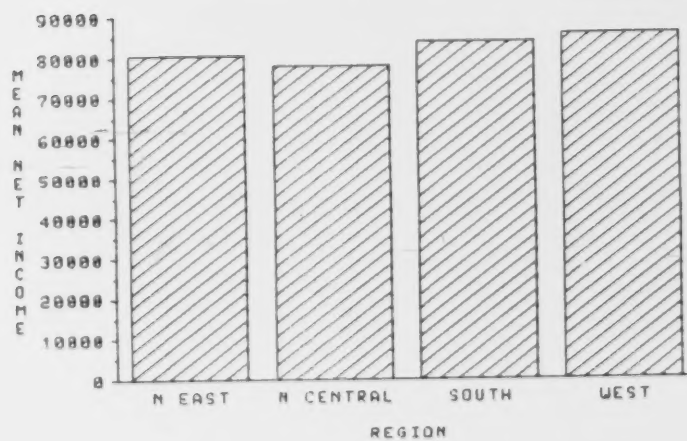


FIGURE 3.
MEAN NET INCOME BY REGION
INDEPENDENT DENTISTS, 1987



SOURCE: AMERICAN DENTAL ASSOCIATION, 1988 SURVEY OF DENTAL PRACTICE.

FIGURE 4.
MEAN NET INCOME BY AGE GROUP
SOLO DENTISTS, 1987

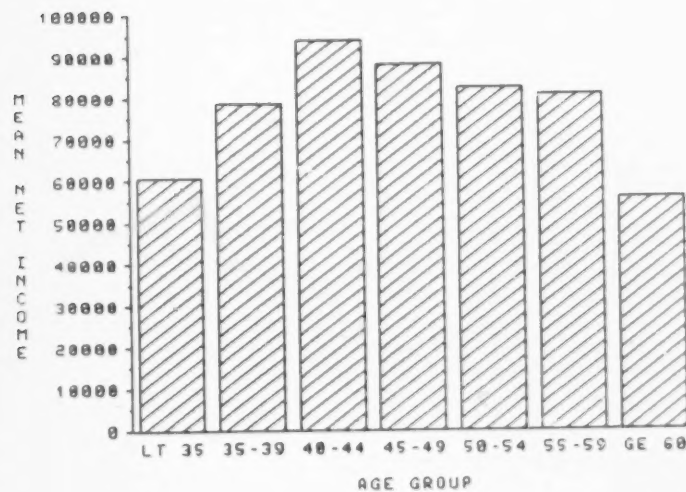
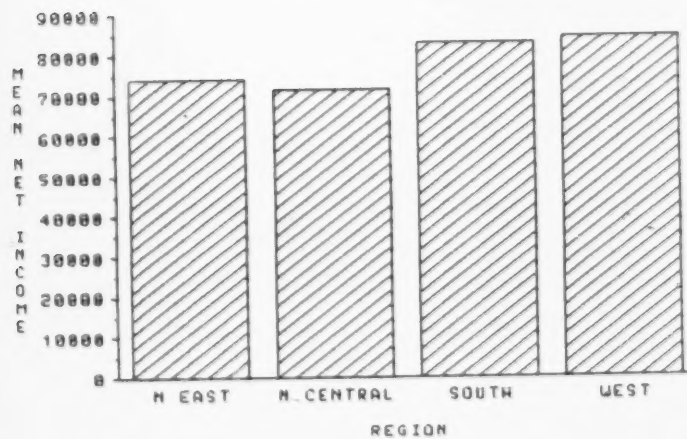


FIGURE 5.
MEAN NET INCOME BY REGION
SOLO DENTISTS, 1987



SOURCE: AMERICAN DENTAL ASSOCIATION, 1988 SURVEY OF DENTAL PRACTICE.

FIGURE 6.
MEAN NET INCOME BY SPECIALTY STATUS

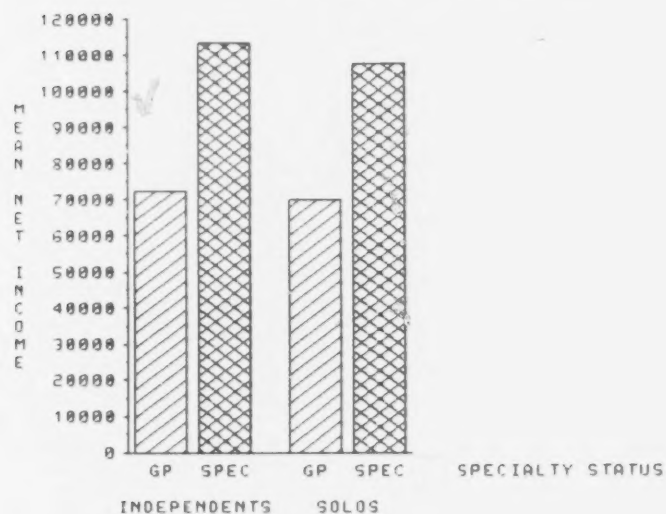
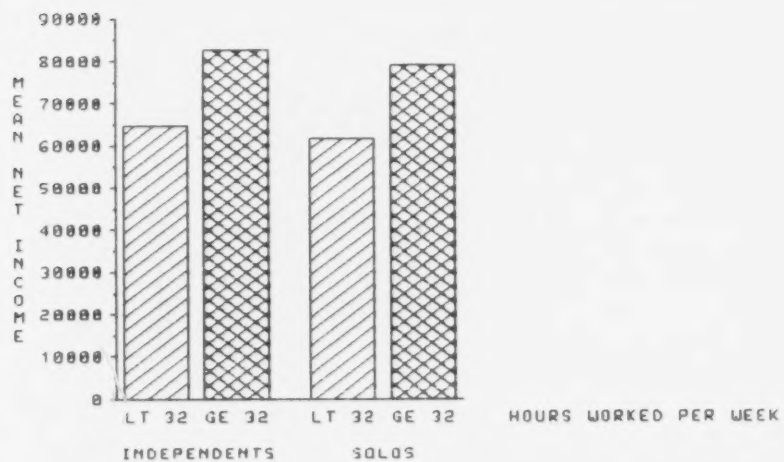


FIGURE 7.
MEAN NET INCOME BY HOURS WORKED PER WEEK



SOURCE: AMERICAN DENTAL ASSOCIATION, 1988 SURVEY OF DENTAL PRACTICE.

IV. DEFINITIONS

Definitions of several terms and phrases are provided in this section to assist with the interpretation of data contained in the tables. The dentists included in this report were working in private practice as a primary occupation. In addition, all dentists had started in their current (i.e., 1987) practice prior to 1987.

- A. INDEPENDENT DENTIST: An independent dentist owns or shares in the ownership of a dental practice. This ownership status includes sole proprietors, partners, and those who are shareholders in an incorporated practice.
- B. SOLO DENTIST: A solo dentist is the sole owner of the practice and is the only dentist working in the practice. The dentist may be either a sole proprietor or the sole shareholder in an incorporated practice. Solo dentists are a subset of independent dentists.
- C. SOLE PROPRIETOR: A sole proprietor is the single owner of a dental practice. A dentist who is a sole proprietor may or may not work with other dentists in the same practice. A sole proprietor who works with no other dentists is a solo dentist. A sole proprietor who employs other dentists is not a solo dentist. A single owner of an incorporated dental practice is placed in the category "shareholder in an incorporated dental practice." A shareholder in an incorporated practice can be a solo dentist.
- D. SHAREHOLDER: A shareholder dentist is an owner dentist in an incorporated practice. He may be the sole shareholder or may share ownership with other shareholders.
- E. NONOWNER ASSOCIATE DENTIST: A nonowner dentist may be employed in an incorporated or unincorporated dental practice on a salary, commission, percentage, or associate basis. A nonowner dentist may be an independent contractor, but he may not be a shareholder in an incorporated practice.
- F. INDEPENDENT CONTRACTOR: While the definition for independent contractor dentist may vary, we assume that this group includes dentists who contract with other owner dentists for use of space and equipment, and who do not receive a salary from the owner dentist. Their income is derived from fees charged to their own patients.
- G. MEAN: The mean is the simple average of values reported by the dentists responding to the survey. The mean is calculated by summing the values reported and then dividing the sum by the number of dentists responding to the question.

H. WEIGHTING: Since specialists comprise a smaller percent of the dental population, it was necessary to oversample them to insure adequate numbers for statistical analysis. The proportion of specialists in the sample is higher than the actual proportion of specialists in the total population of dentists. Please note that individual specialties were not oversampled and, therefore, only statistics on specialists as a group are presented. Statistics computed for all dentists were weighted to reflect national proportions.

I. REGIONS: The following is a breakdown of the states contained within each region.

New England: CT, ME, NH, RI, VT, MA
Middle Atlantic: NJ, NY, PA
East North Central: IL, IN, MI, OH, WI
West North Central: IA, KS, MN, MO, ND, NE, SD
South Atlantic: DE, MD, DC, FL, GA, NC, SC, VA, WV
East South Central: AL, KY, MS, TN
West South Central: AR, LA, OK, TX
Mountain: AZ, CO, ID, MT, NV, NM, UT, WY
Pacific: AK, CA, HI, OR, WA

For the graphs, the states were grouped as follows:

North East: ME, NH, VT, MA, RI, CT, NY, NJ, PA
North Central: OH, IN, IL, MI, WI, MN, IA, MO, ND,
SD, NE, KS
South: DE, MD, DC, VA, WV, NC, SC, GA, FL, KY, TN, AL
MS, AR, LA, OK, TX
West: MT, ID, WY, CO, NM, AZ, UT, NV, WA, OR, CA, AK,
HI



American
Dental
Association

211 East Chicago Avenue
Chicago, Illinois 60611
312 440-2500

1988 Survey of Dental Practice

Please answer all questions by **circling** the number corresponding to the most appropriate response, except where a fill in the blank is requested

1. Which of the following best describes your **primary and/or secondary occupation(s)** during 1987? (Please circle one response for **each** column)

	Primary Occupation	Secondary Occupation
a. Private practice (full- or part-time)	00	00
b. Dental school faculty/staff member	01	01
c. Armed Forces	02	02
d. Other federal services (e.g., VA, PHS)	03	03
e. State or local government employed	04	04
f. Hospital staff dentist	05	05
g. Intern/resident	06	06
h. Other student	07	07
i. Other health/dental organization staff member (e.g., NIDR)	08	08
j. Not in practice	09	09
k. Retired	10	10
l. Occupation unrelated to dentistry	11	11
m. No secondary occupation	—	12

Please complete the remainder of this questionnaire if you were in **private practice** during any part of 1987.
If you were **not involved** in the **private practice** of dentistry during **any part** of 1987, please return the questionnaire. Thank you.

Individual Dentist Questions

The following questions pertain to you as an individual private practitioner. If you changed practices (i.e., worked in more than one **primary practice** during 1987), please give information on the practice in which you treated patients for the greatest number of months.

- 2a. Were you **announcing yourself and practicing** as a specialist in an ADA recognized specialty area (dental public health, endodontics, oral and maxillofacial surgery, oral pathology, orthodontics, pediatric dentistry, periodontics, or prosthodontics) in your **primary practice** in 1987?

Yes 1
No (Skip to question 3.) 2

- b. Which **one** of the following specialties are you actively practicing?

Oral and maxillofacial surgery	10
Endodontics	15
Orthodontics	20
Pediatric dentistry	30
Periodontics	40
Prosthodontics	50
Oral pathology	60
Public health	82

3. In what year did you **first** become associated with the **primary practice** where you practiced during 1987? 19 _____

4. Which **one** of the following **best** describes your employment status when you **first** became associated with that practice?

a. Sole proprietor (i.e., the only owner) in an unincorporated dental practice	1
b. Partner in a complete or limited partnership	2
c. Shareholder in an incorporated dental practice	3
d. Employed in an incorporated dental practice on a salary, commission, percentage, or associate basis but not a shareholder	4
e. Employed in an unincorporated dental practice on a salary, commission, percentage, or associate basis	5
f. Independent contractor	6
g. Other, please specify _____	

5. Which **one** of the following **best** describes your employment status in that practice during 1987?

a. Sole proprietor (i.e., the only owner) in an unincorporated dental practice	1
b. Partner in a complete or limited partnership	2
c. Shareholder in an incorporated dental practice	3
d. Employed in an incorporated dental practice on a salary, commission, percentage, or associate basis but not a shareholder	4
e. Employed in an unincorporated dental practice on a salary, commission, percentage, or associate basis	5
f. Independent contractor	6
g. Other, please specify _____	

6. Please answer the following about the time **you personally** spent in your primary practice during 1987.

a. Total number of weeks worked (excluding vacation)	_____ weeks
b. Total number of hours per week spent in the practice	_____ hours per week
c. Number of hours per week spent treating patients in the practice	_____ hours per week
d. Estimate the average scheduled length of an appointment in 1987.	_____ minutes
e. During a typical week, what percentage of your time treating patients in the primary practice was devoted to each of the following procedures? (If none, enter zero.)	

	Percentage of Time Per Week
Diagnostic (exams, x-rays, etc.)	_____ %
Preventive (fluoride treatments, prophylaxis, patient education, pit and fissure sealants, etc.)	_____ %
Operative (restoration, amalgams, inlays, etc.)	_____ %
Prosthodontic	_____ %
Endodontic	_____ %
Periodontic	_____ %
Orthodontic	_____ %
Oral and maxillofacial surgery	_____ %
General services (anesthesia, patient management, counseling, miscellaneous)	_____ %
Total	100%

7. The following represent possible contractual agreements with third parties. Indicate if **any** apply to you in your practice by estimating the percentage of patients involved in each. Enter a zero if the category does not apply.

	Percentage of Patients
a. Service benefit plan participating agreement (e.g., Delta Dental Plan or Blue Cross and Blue Shield with participating agreement)	_____ %
b. Capitation (e.g., Prudential DMO, Safeguard Health Plans, CIGNA Dental Health)	_____ %
c. Fee schedule agreement (e.g., agreement with any insurance company that is contracting with Insurance Dentists of America)	_____ %
d. Straight risk pool (e.g., Individual Practice Association Program)	_____ %
e. Capitation-risk pool combination (e.g., Delta Dental Pacesetter Program)	_____ %
f. Discount of usual fees agreement (e.g., Aetna Fast Track Program)	_____ %
g. Other contractual agreement	_____ %

8. During the entire year of 1987 indicate the **total** number of **patients you treated** in the **primary practice**. (This number should be different than the total number of appointments below.)

_____ total patients

9. Please indicate the following regarding patient care that **you personally** provided in the **primary practice** during 1987.

The average number of

- a. **Appointments scheduled per week** (excluding those with hygienist appointments only)

_____ appointments per week

- b. **Walk-in visits** per week that **you** treated (i.e., non-emergency and no appointment scheduled). If none, enter zero.

_____ visits per week

- c. **Emergency visits** per week that **you** treated (i.e., no appointments scheduled). If none, enter zero.

_____ visits per week

- d. **Scheduled visits** per week that **you actually** treated (excluding those with hygienist appointments only)

_____ visits per week

10. During a typical week, approximately what percentage of your time treating patients in your **primary practice** was devoted to implant services? (If none, enter zero.)

_____ %

11. Which **one** of the following best describes **you** in your **primary practice** during 1987?

Busyness

- | | |
|---|---|
| a. Too busy to treat all people requesting appointments | 1 |
| b. Provided care to all who requested appointments but was overworked | 2 |
| c. Provided care to all who requested appointments and was not overworked | 3 |
| d. Not busy enough, could have treated more patients | 4 |

Entire Primary Practice Characteristics

12. What was the zip code of your **primary practice** during 1987?

_____ zip code

13. **Including yourself**, please indicate the number of full- or part-time **dentist positions** in the **entire primary practice** during 1987. (If none, enter zero.)

Number of Dentist Positions

- a. Number of **owner** dentists (i.e., sole proprietor, partners, or shareholders)

- b. Number of **non-owner** dentists (i.e., employed dentists, associates and non-shareholders). If none, enter zero.

14. **Including yourself**, please indicate the number of full- and part-time **dentist positions** in each of the following practice areas in the **primary practice** during 1987.

Number of Dentist Positions
full-time part-time

- | | | |
|-----------------------------------|-------|-------|
| a. General practice | _____ | _____ |
| b. Oral and maxillofacial surgery | _____ | _____ |
| c. Endodontics | _____ | _____ |
| d. Orthodontics | _____ | _____ |
| e. Pediatric dentistry | _____ | _____ |
| f. Periodontics | _____ | _____ |
| g. Prosthodontics | _____ | _____ |
| h. Oral pathology | _____ | _____ |
| i. Public health | _____ | _____ |
| j. Other, please specify _____ | _____ | _____ |

15. Please indicate the number of full-time (32 hours per week or more) and part-time (less than 32 hours per week) **employee positions** in the **primary practice** during 1987. (If none, enter zero.)

Number of Employee Positions
full-time part-time

- | | | |
|------------------------------------|-------|-------|
| a. Dental hygienist(s) | _____ | _____ |
| b. Chairside assistant(s) | _____ | _____ |
| c. Secretary/receptionist(s)* | _____ | _____ |
| d. Dental laboratory technician(s) | _____ | _____ |
| e. Bookkeeper, business personnel | _____ | _____ |
| f. Other, please specify _____ | _____ | _____ |

*Note: A secretary or receptionist who also provides chairside assistance at least 50% of the time should be counted as a chairside assistant.

16. For the **entire primary practice**, indicate the number of chairside assistants (full- and part-time) employed in 1987 who received formal training in a structured program.

- a. Full-time _____
- b. Part-time _____

17. Please provide the following regarding all dental hygienist(s) appointments and visits in the **entire primary practice** during 1987. (If no hygienists were employed, skip to question 19.)

The average number of: **Dental Hygienist(s)**

- a. **Appointments scheduled per week** primarily for hygienist(s) treatment

_____ appointments per week

- b. **Scheduled visits** per week that were actually treated by all hygienist(s)

_____ visits per week

- 18 Please provide the following for **each dental hygienist** in the **entire primary practice** during 1987. If the practice did not employ someone in these positions, please check the appropriate box.

	Not Applicable (Please check box.)	Annual Salary/ Commission (in dollars) per year	Weeks Worked per Year weeks	Hours Worked per Week hours	Length of Experience Prior to Employment in this Practice		Length of Employment in this Practice	
					years	months	years	months
Dental Hygienist(s):								
Position #1	☐	\$ _____	_____	_____	_____	_____	_____	_____
Position #2	☐	\$ _____	_____	_____	_____	_____	_____	_____
Position #3	☐	\$ _____	_____	_____	_____	_____	_____	_____
Position #4	☐	\$ _____	_____	_____	_____	_____	_____	_____

- 19 Please provide the following for **each employee** in the **entire primary practice** during 1987. If the practice did not employ someone in these positions, please check the appropriate box.

	Not Applicable (Please check box.)	Weekly Salary (in dollars) per week	Hours Worked per Week hours	Length of Experience Prior to Employment in this Practice		Length of Employment in this Practice	
				years	months	years	months
Chairside Assistant(s):							
Position #1	☐	\$ _____	_____	_____	_____	_____	_____
Position #2	☐	\$ _____	_____	_____	_____	_____	_____
Position #3	☐	\$ _____	_____	_____	_____	_____	_____
Position #4	☐	\$ _____	_____	_____	_____	_____	_____
Position #5	☐	\$ _____	_____	_____	_____	_____	_____
Secretary/Receptionist(s):							
Position #1	☐	\$ _____	_____	_____	_____	_____	_____
Position #2	☐	\$ _____	_____	_____	_____	_____	_____
Position #3	☐	\$ _____	_____	_____	_____	_____	_____
Dental Laboratory Technician(s):							
Position #1	☐	\$ _____	_____	_____	_____	_____	_____
Position #2	☐	\$ _____	_____	_____	_____	_____	_____
Bookkeeping/Business Personnel:							
Position #1	☐	\$ _____	_____	_____	_____	_____	_____
Position #2	☐	\$ _____	_____	_____	_____	_____	_____

Please use the following space to provide information for **all personnel not included above in questions 18 and 19.**

_____	\$ _____	_____	_____	_____	_____	_____	_____
_____	\$ _____	_____	_____	_____	_____	_____	_____
_____	\$ _____	_____	_____	_____	_____	_____	_____
_____	\$ _____	_____	_____	_____	_____	_____	_____
	per week	hours	years	months	years	months	

20. For the **entire primary practice** in 1987, please indicate the following regarding the employment of auxiliary staff. (If none, enter zero.)

	Dental Hygienists	Chairside Assistants
a. Number of open positions filled in 1987	_____	_____
unfilled in 1987	_____	_____
b. Average number of weeks position(s) was open	_____	_____

21. What is the estimated starting salary in your **primary practice** for the following auxiliary positions with no prior experience?

Starting Salary

a. Dental hygienist	\$ _____ /hour
b. Chairside assistant	\$ _____ /hour

22. In the **primary practice** during 1987, indicate whether or not and to whom the following benefits were offered. (If the practice did not offer the benefit, please check the appropriate box.)

	Not Offered	Dental Hygienist(s)	Chairside Assistant(s)	Dental Laboratory Technician(s)	Secretary/ Receptionist(s)
a. Medical insurance	☐	1	2	3	4
b. Dental insurance (or reduced costs)	☐	1	2	3	4
c. Separate malpractice insurance	☐	1	2	3	4
d. Life insurance	☐	1	2	3	4
e. Profit sharing	☐	1	2	3	4
f. Pension plan	☐	1	2	3	4
g. Paid sick leave	☐	1	2	3	4
h. Paid vacation days	☐	1	2	3	4
i. Reimbursement for professional organization dues	☐	1	2	3	4
j. Reimbursement for continuing education courses	☐	1	2	3	4
k. Incentive program:					
percent of total production	☐	1	2	3	4
percent of production above certain limits	☐	1	2	3	4
set bonus if budgeted goals are met	☐	1	2	3	4
l. Other, please specify _____					

23. Which of the following personnel in your **primary practice** use gloves, mask, protective eyewear or gowns when working with all or selected patients?

	Gloves			Mask			Protective Eyewear			Protective Gowns		
	all	some patients	none	all	some patients	none	all	some patients	none	all	some patients	none
a. Dentist (self)	1	2	3	1	2	3	1	2	3	1	2	3
b. Dental hygienist(s)	1	2	3	1	2	3	1	2	3	1	2	3
c. Chairside assistant(s)	1	2	3	1	2	3	1	2	3	1	2	3
d. Other, please specify _____	1	2	3	1	2	3	1	2	3	1	2	3

24. Approximately how long have you **personally** used the following barrier techniques?

	Number of Years	Number of Months	Do not use (Check box.)
a. Gloves	_____	_____	☐
b. Mask	_____	_____	☐
c. Protective eyewear	_____	_____	☐
d. Protective gowns	_____	_____	☐

25. If you wear gloves, do you change them after every patient?

Yes	1
No	2
Not applicable	3

26a. Did the **primary practice** utilize computer processing services during 1987?

Yes 1
No (Skip to question 27.) 2

b. Were these computer services provided by an:

In-house computer? 1
Outside computer service? (Skip to question 26d.) 2
Other, please specify _____

c. Who was the primary user of the computer system?

Dentist(s) 1
Secretary/receptionist(s) 2
Bookkeeping/business personnel 3
Other, please specify _____

d. For which of the following functions was a computer utilized? (Please circle as many as apply.)

Patient accounting and billing 1
Maintaining expense records 2
Processing insurance forms 3
Maintaining treatment records 4
Diagnosis and monitoring of treatment 5
Scheduling patients 6
Office newsletters 7
Form letters 8
Other, please specify _____

e. Which of the following was most important in your choice of a computer?

Price 1
Service/support 2
Training 3
Hardware 4
Software 5
Other, please specify _____

f. How were you introduced to your computer?

Advertisement 1
Trade show 2
Mailing 3
Telephone call 4
Other, please specify _____

g. If given the opportunity, would you purchase the same computer system again?

Yes 1
No 2

h. Is your computer:

Single user? 1
Multi user? 2

i. If given the opportunity to purchase another computer system, which of the following would be most important to you?

Price 1
Service/support 2
Training 3
Hardware 4
Software 5
Other, please specify _____

27. In the **entire primary practice** during 1987

a. What was the total number of operatones? _____
operatones

b. How many of these were fully-equipped operatones (i.e., where a dentist can perform at least restorative dentistry)? _____
operatones

c. What was the total square feet of office space? _____
square feet

28. Did the **primary practice** operate its own dental laboratory during 1987?

Yes 1
No 2

29. Were any of the following items of equipment utilized by the **primary practice** during 1987?

	Yes	No
a. Composite light curing unit	1	2
b. High speed air handpiece with fiber optics	1	2
c. Panoramic x-ray unit	1	2
d. Ultrasonic or sonic scaling unit	1	2
e. Electrosurgical unit	1	2
f. Nitrous oxide analgesic equipment	1	2
g. Modular instrument delivery system (wall divider)	1	2
h. Automatic x-ray film processor	1	2
i. Autoclavable handpiece	1	2
j. Scavenger system for nitrous oxide	1	2
k. Intraoral video camera	1	2
l. Laser	1	2
m. Biological indicator (spore test)	1	2

30. Which of the following **best** describes your **primary practice** location during 1987?

a. Metropolitan area with a population greater than 500,000	1
central city location	2
suburban location	
b. Metropolitan area with a population between 100,000 and 500,000:	
central city location	3
suburban location	4
c. City of 50,000-99,999 population	5
d. City of 20,000-49,999 population	6
e. Rural (less than 20,000 population)	7

31. Which of the following **best** describes the building where the **primary practice** was located during 1987?

a. Home	1
b. Professional building	2
c. Shopping center	3
d. Other commercial building	4

32. Do either of the following characterize your **primary practice** where you worked in 1987?

	Yes	No
a. Retail or drug store facility	1	2
b. Franchise (practice marketed under a trade name)	1	2

33. a. In 1987, was your **primary practice** located in more than one office?

Yes 1
No (Skip to question 34.) 2

b. If yes, indicate the number of offices associated with your **primary practice** _____

If you were a solo practitioner during 1987, please skip to question 36.

34. Please indicate the following regarding patient care by the **entire primary practice** during 1987.

The average number of:

Entire Practice

- a. **Appointments scheduled** per week (excluding those with hygienist appointments only)

appointments per week

- b. **Walk-in visits** per week that were treated (i.e. non-emergency and no appointment scheduled) if none, enter zero

visits per week

- c. **Emergency visits** per week (i.e., no appointment scheduled) if none, enter zero

visits per week

- d. **Scheduled visits** per week that were **actually treated** (excluding those with hygienist appointments only)

visits per week

35. During the entire year of 1987 indicate the **total** number of **patients** treated by the **primary practice**. (This number should be different than your total number of appointments above.)

total patients

36. Approximately what percentage of the **entire practice's** yearly patients are received on a referral basis from another practice, dentist or physician?

%

- 37a. During a typical month, about how many **new patients** were treated in the **entire primary practice** where you practiced in 1987? (If none, enter zero and skip to question 38.)

new patients per month

- b. For 1987, please indicate the percentage of **new patients** from the following sources (If none, enter zero.)

Entire Practice Sources of New Patients

Other dentists:

General practitioners

Specialists

Patients

Dental referral service

Other professionals (e.g., M.D.'s)

Direct mail or commercial advertising

(TV, radio, newspaper, etc.)

Capitation/closed panel contracts

Other, please specify

Total

100%

38. For the **entire primary practice** during 1987, how long did an average patient of record and average new patient have to wait:

Entire Practice Waiting Time

patient of record new patient

- a. For the **initial appointment** of a series (excluding emergency cases)?

days

- b. To see a dentist **after** the patient arrived for a **scheduled appointment**?

minutes

39. Of the 52 weeks in 1987, how many weeks was the **primary practice** scheduled to be open (not including emergency cases) to provide care to patients?

weeks

40. Approximately what percentage of the patients who visited the primary practice:

Entire Practice Patient Characteristics

- a. were:
14 years of age or younger?
15 to 64 years of age?
65 years of age or older?

Total 100%

- b. were members of families whose annual income is estimated to be:
under \$10,000?
\$10,000 to 29,999?
\$30,000 or more?

Total 100%

- c. were:
covered by a private insurance program that pays or partially pays for their dental care?
covered by a public assistance program that pays or partially pays for their dental care?
not covered by an insurance program?

Total 100%

- d. were:
male?
female?

Total 100%

- e. were physically handicapped and/or mentally handicapped?

- f. were members of a racial minority?

41. Please indicate the percentage of patients who travelled various distances (from work or home) to your **primary practice** office

- a. Patients close (within walking distance or within 1-10 minute drive or transportation)
b. Patients within 11-39 minutes drive or transportation
c. Patients within 40 or more minute drive or transportation

Total 100%

42. For each of the dental procedures listed below, indicate the usual fee the **entire primary practice** charged during 1987. (If you usually provided the procedure free of charge, enter zero in the appropriate blank. If the procedure is not routinely performed, check the appropriate box.) Please do not report ranges.

	Not Done	Usual Fee
a. Periodic oral examination (excluding radiographs)	☐	\$ _____
b. Bitewing radiographs, for films	☐	\$ _____
c. Dental prophylaxis, for adults	☐	\$ _____
d. Pit and fissure sealant, per tooth	☐	\$ _____
e. Topical fluoride treatment (including prophylaxis), child	☐	\$ _____
f. Amalgam restoration, one surface, permanent (including polishing)	☐	\$ _____
g. Fixed unilateral space maintainer restoration	☐	\$ _____
h. Root canal therapy—molar (includes treatment plan, clinical procedures, and follow-up care, excluding final restoration), one canal	☐	\$ _____
i. Periodontal scaling and root planing—per quadrant	☐	\$ _____
k. Complete upper acrylic-base denture, including six-months post-delivery care	☐	\$ _____
l. Extraction (including local anesthesia and post-operative care), single tooth	☐	\$ _____

43. What was **your** 1987 net income (after practice expenses and business taxes) from: (Please include salary, commission and/or dividends.)

	Net Income
a. Your primary practice?	\$ _____
b. Your secondary practice (if applicable)?	\$ _____
c. Other income from dentistry (i.e., teaching, research, other practice, etc.)?	\$ _____

44. In the **entire primary practice**, what was the total amount of fees charged for the dental care provided during 1987 (annual billing)?

\$ _____

45. What percentage of the **gross receipts** were received: (If none, enter zero.)

	Gross Receipts
a. As direct patient payment?	_____ %
b. As payment from government programs (e.g., Medicare, Medicaid, or other public insurance)?	_____ %
c. As direct payment from private insurance carriers?	_____ %
d. From other sources of payment? Please specify _____	_____ %
Total	100%

46. During 1987, were any of the expenses of the **entire primary practice** (dental facilities or staff) shared with other dentists?

Yes
No

1
2

If you shared expenses (dental facilities or staff) with any other practices, please report **only your entire primary practice's** share of the expenses.

47. For each item below, what were the **total professional expenses** for the **entire primary practice** during 1987? (If no expenses were incurred for specific items, please enter zero.)

	Expenses
a. Yearly rent	\$ _____
b. Yearly mortgage (including interest)	\$ _____
c. Total salaries, wages and commissions of non-dentist employees	\$ _____
d. Total salaries, wages and commissions of employed dentists (exclude salaries of owner dentists or shareholders of incorporated practices)	\$ _____
e. Total salaries, wages and commissions of officers/shareholder dentists (for incorporated practices only)	\$ _____
f. Employee benefits of personnel, not included in salaries, (e.g., insurance, pensions, etc.)	\$ _____
g. General office supplies	\$ _____
h. Dental supplies	\$ _____
i. Commercial dental laboratory charges	\$ _____
j. Advertising expenses	\$ _____
k. Annual depreciation costs of dental and office equipment	\$ _____
l. Taxes on business and business property	\$ _____
m. Repairs of dental or office equipment	\$ _____
n. Insurance related to dental office (liability, fire, etc.)	\$ _____
o. Legal and professional fees	\$ _____
p. Professional liability (malpractice insurance)	\$ _____
q. Interest on business indebtedness (excluding mortgage)	\$ _____
r. Drugs	\$ _____
s. Utilities (telephone, electricity, etc.)	\$ _____
t. Professional expenses (travel to meetings, society dues, etc.)	\$ _____
u. Bad debts	\$ _____
v. Other, please specify _____	\$ _____
w. Total Professional Expenses	\$ _____

Thank you for your assistance in this important research project. Please return this questionnaire by folding and placing tape as indicated. Drop it in the mail, postage is paid.